UNIV. OF
TORONTO
LIBRARY

Med.
Qt

THE

CANADIAN JOURNAL

OF

MEDICINE AND SURGERY

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF MEDICINE AND SURGERY

J. J. CASSIDY, M.D., EDITOR.

VOL. XI.

JANUARY TO JUNE, 1902

306416
RD. 11. 34

BUSINESS MANAGER
W. A. YOUNG, M.D., L.R.C.P.LOND.
145 COLLEGE ST., TORONTO, CAN.
1902

F.
11
C38
v.11

INDEX TO VOLUME XI.

Book Reviews.

PAGE

A Guide to the Clinical Examination of the Blood for Diagnostic Purposes. By Richard C. Cabot, M.D. ... 70

A Hand-Book of Appendicitis. By A. J. Ochsner, M.D. ... 343

A History of Medicine, Surgery and Allied Science, with special reference to the progress made during the Nineteenth Century. By Ezra H. Stafford, M.D. .. 201

A Laboratory Hand-Book of Urinary Analysis and Physiological Chemistry. By Charles G. L. Wolf, B.A., M.D. ... 139

A Manual of Clinical Laboratory Methods. By John Benjamin Nichols, M.D. ... 139

A Manual of Medicine, Edited by W. H. Allchin, M.D. ... 62

A Manual of Minor Surgery and Bandaging. By Christopher Heath, F.R.C.S., LL.D. ... 208

A Manual of Ophthalmoscopy. By J. E. Jennings, M.D. ... 346

A Manual of Volumetric Analysis. By Virgil Coblentz, Ph.D. ... 137

An American Text-Book of Pathology. Edited by Ludvig Hektoen, M.D,, and David Riesman, M.D ... 65

An Introduction to Chemical Analysis. By Elbert W. Rockwood, M.A., M.D. ... 202

An Introduction to Dermatology. By Norman Walker, M.D. ... 408

A Practical Manual of Insanity for the Student and General Practitioner. By D. R. Brower, M.D. ... 342

A Referenee Hand-Book of the Medical Seiences. Edited by Albert H. Buck, M.D. ... 406

A System of Physiologic Therapeutics. Edited by Solomon Solis Cohen, A.M., M.D. ... 66, 135

A Text-Book on Diseases of the Ear, Nose and Throat. By Charles H. Burnett, M.D., E. Fletcher Ingalls, M.D., James E. Newcomb, M.D. ... 204

A Text-Book of Surgery. By Hermann Tillmanns ... 67, 69

Atlas and Epitome of Operative Surgery. By Dr. Otto Zuckerkandl ... 410

Atlas and Epitome of Otology. By Gustav Bruhl, M.D. ... 409

Bailey and Cady: A Laboratory Guide to the Study of Qualitative Analysis. By E. H. S. Bailey, Ph.D., and Hamilton P. Cady, A.B. ... 276

PAGE

Cliniques Medicales Iconographiques. Par MM. P. Haushalter, G. Etienne, L. Spillmann ... 206

Compend of General Pathology. By Alfred Edward Thayer, M.D. ... 275

Contributions to Practical Medicine. By Sir James Sawyer, Knt., M.D. ... 407

Da Costa: Clinical Hematology. By John C. Da Costa, Jun., M.D. ... 209

Dental Surgery, including Special Anatomy and Pathology. By Henry Sewill, M.R.C.S., L.D.S. ... 74

Directions for Class Work in Practical Physiology. By E. A. Schafer, LL.D. .. 207

Diseases of the Digestive Organs in Infancy and Childhood. By Louis Starr, M.D. . 67

Diseases of the Intestines. By John C. Hemmeter, M.D. ... 410

Encyclopedia Medica. Edited by Chalmers Watson, M.B. ... 200

Essentials of Obstetrics. By Chas. Jewett, A.M., M.D. ... 73

Essentials of Physiology. By Sidney P. Budgett, M.D ... 208

Genito-Urinary Diseases and Syphilis. By Henry H. Morton, M.D ... 344

God Wills It: A Tale of the First Crusade. By William Stearns Davis ... 205

Gonorrheal Arthritis: Its Pathology, Symptoms and Treatment. By L. Vernon Jones, M.D ... 71

Hand-Book of Bateriological Diagnosis, for Practitioners. By W. D'Este Emery, B.Sc. (Lond.) ... 273

Hemmeter—Diseases of the Intestines. By John C. Hemmeter, M.D., Ph.D. ... 132

Hughes and Keith: A Manual of Practical Anatomy. By the late Prof. Alfred W. Hughes, M.B., M.C. (Edin.). Edited by Arthur Keith, M.D. (Aber.) ... 274

International Clinics. Edited by Henry W. Cattell, M.D. ... 203

Johnson's First Aid Manual. Edited by Fred. B. Kilmer ... 345

Kirke's Handbook of Physiology. By W. D. Halliburton, M.D. ... 206

Lectures on the History of Physiology during the Sixteenth, Seventeenth and Eighteenth Centuries. By Sir M. Foster ... 412

Literary Notes ... 74, 141, 210, 277, 412

Manual of Childbed Nursing—With notes on Infant Feeding. By Charles Jewett, A.M., M.D., Sc.D ... 343

PAGE

Maladies de la Voix. Par le Dr. André Castex 210
Manual of Chemistry. By W. Simon, Ph.D., M.D 68
Manual of Physical Diagnosis. By James Tyson, M.D 141
Manual of Venereal and Sexual Diseases. By Wm. A. Hackett, M.B., Ph.G., M.C.P.S. (Ont.), and N. E. Aronstam, M.D., Ph.G 272
Marietta: A Maid of Venice 137
Morphinism and Narcomania. By T. D. Crothers, M.D 345
Mosquito Brigades, and How to Organize Them. By Donald Ross, F.R.C.S 408
New Canterbury Tales. By Maurice Hewlett 209
Nothnagel's Encyclopedia of Practical Medicine: Typhoid and Typhus Fevers. By Dr. H. Curschmann 63
Nursing—General, Medical, and Surgical, with Appendix on Sick-Room Cookery. By Wilfrid J. Hadley, M.D., F.R.C.P., F.R.C.S 276
Pathological Technique. By Frank Burr Mallory, A.M., M.D., and James Homer Wright, A.M., M.D 61
Pediatrics—The Hygienic and Medical Treatment of Children. By Thomas Morgan Rotch, M.D 275
Practice of Medicine. Edited by George Alexander Gibson, M.D 199
Practical Medicine Series of Year-Books. The Eye, the Ear, the Nose and Throat 342
Progressive Medicine, Vol IV., 1901. Edited by Hobart Amory Hare, M.D 136
Progressive Medicine. Edited by Hobart Amory Hare, M.D 339
Quain's Dictionary of Medicine. Edited by H. Montague Murray, M.D 109
Rough Notes on Remedies. By Wm. Murray, M.D 207
Some Thoughts on the Principles of Local Treatment in Diseases of the Upper Air Passages. By Sir Felix Semon, M.D ... 346
Studies of the Internal Anatomy of the Face. By M. H. Cryer, M.D., D.D.S 72
Syphilis: A Symposium. Special contributions 340
Syphilis: Its Diagnosis and Treatment. By William S. Gottheil, M.D 71
Tarry Thou Till I Come; or, Salathiel, the Wandering Jew. By George Croly 72
The Accessory Sinuses of the Nose, their Surgical Anatomy and the Diagnosis and Treatment of their Inflammatory Affections. By A. Logan Turner, M.D. 68
The American Year-Book of Medicine and Surgery for 1902 341
The Benefactress. By the Author of "Elizabeth and Her German Garden." 277
The Cavalier. By George W. Cable 71

PAGE

The Diagnosis of Nervous and Mental Diseases. By Howell T. Pershing, M.Sc., M.D 73
The Drug Habits and Their Treatment. By T. D. Crothers, M.D 344
The Four Epochs of Woman's Life. By Anna M. Galbraith, M.D 139
The Healing of Nerves. By Charles A. Ballance, M.S., F.R.C.S 138
The International Medical Annual: A Year-Book of Treatment and Practitioner's Index 340
The Man from Glengarry: a Tale of the Ottawa. By Ralph Connor 64
The Medical Annual: A Year-Book of Treatment and Practitioners' Index. 1902 273
The Medical Profession in Upper Canada—1783-1850. By Wm. Canniff, M.D 204
The Medical Record Visiting List, or Physician's Diary for 1902 73
The Outcasts. By W. A. Fraser 134
The Pocket Gray, or Anatomists' Vade-Mecum. By the late Edward Cotterell, F.R.C.S 140
The Practical Medicine Series of Year-Books. Edited by Emelius C. Dudley, A.M., M.D 111
The Practical Medicine Series of Year-Books. Under the general editorship of Gustavus P. Head, M.D 133, 111
The Right of Way. By Gilbert Parker 71
The Standard Medical Manual. By Alfred S. Burdick, M.D 70
The Technique of Surgical Gynecology. By Augustin H. Goelet, M.D 140
The Voyage of Ithobal. By Sir Edwin Arnold, M.A 338
Transactions of the American Ophthalmological Society 277
Venereal Diseases. By James R. Hayden, M.D 135
Water and Water Supplies. By John C. Thresh, D.Sc., M.D., D.P.H 131
Where the Sugar Maple Grows. By Adeline M. Teskey 276
Young Barbarians. By Ian Maclaren 210

Correspondence.

An Explanation 259
On Behalf of the Inebriate 187
The Trades Union and the Medical Profession 128

Editorials.

A Further Addition to our Staff 390
A Human Subject for Vivisection 180
A Modified Type of Variola 115
Anti-Ethylene in the Treatment of Inebriety 117
A Prescription for our Millionaires 253
Belladonna in the Treatment of Constipation 317

PAGE

Causes of Idiocy in Children 113
Comparative Consumption of Alcoholic Beverages in Different Countries 49
Dr. Roddick's Bill 252
Eat, Drink and be Merry 251
Editorial Notes.....53, 120, 181, 255, 320, 390
Foolhardiness..... 254
German Data Regarding the Cause and Treatment of Tuberculosis 176
In the Hospitals Is it Pay, Pay, Pay? 51
Iodine and Thyroid-Therapy in Goitre and Thyroid-Therapy in Insanity..... 215
Is Cancer Curable?..... 178
Items of Interest.....56, 123, 189, 262, 324, 395
"Locum Tenens" Unusual in Canada..... 318
Migration of the Population from the Country to the City 249
New Year's Greeting 45
Our 1901 Staff Dinner 119
Proposed Convocation Hall for Toronto University 387
Sudden Deaths not Traceable to Important Pathological Lesions..... 384
Tetanus and Vaccination 50
Tetanus and Diphtheria Antitoxin at St. Louis 52
The Administration of Anesthetics..... 46
The Canadian Association for the Prevention of Tuberculosis 386
The Dominion Medical Council 388
The Operative Treatment of Chronic Bright's Disease 313
The Prohibition Bill 173
Utility of Alcohol and Oatmeal in Tuberculosis 381
What a Mere Man Did 180

Medical Jurisprudence and Toxicology.

Responsibility for the Recent Deaths from the Use of Impure Antitoxins and Vaccine Virus 31
The Medico-Legal Society of New York City..... 36

Obituaries.

Death of Dr. W. S. Muir, Truro, N.S..... 260
The Death of Sir Wm. MacCormac, Bart .. 60
The Late Dr. Lesslie M. Sweetnam 59

Original Contributions.

Address to the Graduating Class of the Training School for Nurses, Toronto General Hospital. By A. Primrose, M.B., C.M. (Edin.), M.R.C.S. (Eng.), Toronto..... 10
An Appreciation of Pryor's Method of Removing the Fibroid Uterus by the Abdomen. By Lapthorn Smith, B.A., M.D., M.R.C.S. (Eng.)..... 230
A Case of Congenital Tooth. By Geo. H. Carveth, M.D., Toronto 355
Case of Tumor of the Superior Maxilla. By Chas. F. Forshaw, LL.D., F.R.S.L.. 357

PAGE

Chronic Ulceration of Stomach Simulating Cancerous Disease—Relation of a Case of Gastroenterostomy with Murphy Button—Recovery. By James F. W. Ross, M.D., Toronto, Ont., and E. B. O'Reilly, M.D., Hamilton, Ont..... 84
Duncombe *vs.* The Mutual Life Insurance Company of New York. By Arthur Jukes Johnson, M.B., M.R.C.S. (Eng.), Toronto..... 347
Experiments in Climatology—The Canadian Summer. By Ezra H. Stafford, M.D..... 279
Is Vaccination What It Should Be? By A. J. Harrington, M.D., M.R.C.S.(Eng.), Toronto 97
National Physical Development. By J. N. Hutchison, M.D., Winnipeg..... 1
On Some Medical Facts and Usages among the Indians and French Canadians. By W. L. T. Addison, B.A., M.B., Toronto 295
Phlegmon and Fistula of the Lower Jaw, Consecutive to Eruption of the Wisdom Teeth. Fracture of the Bone or Fractures of the Teeth and Infection after Extraction. By Thomas H. Manley, M.D., Ph.D., New York City 356
Pulmonary Tuberculosis: Its Treatment and Prevention. By A. P. Procter, M.D., Kamloops, B.C..... 153
Pus in the Kidneys: Its Pathological Basis and Its Treatment. By Thomas H. Manley, M.D., New York 227
Sewage Purification. By P. H. Bryce, M.D. 223
The Operative Treatment of Chronic Bright's Disease. By A. Primrose, M.B., C.M. (Edin.), M.R.C.S. (Eng.).... 143
The Treatment of Sciatica. By Vernon A. Chapman, M.D..... 351
Transplantation of Ureters into the Rectum for Exstrophy of the Bladder—by the Author's Extra-Peritoneal Method.—Three Additional Cases. By George A. Peters, M.B., F.R.C.S. (Eng.)..... 211
Treatment of Laryngeal Tuberculosis. By J. Price-Brown, M.D., Toronto..... 75
Treatment of Tuberculous Affections of Bones and Joints. By Clarence L. Starr, M.D..... 160
Vaccinal Protection Against Smallpox. By P. H. Bryce, M.A., M.D., Toronto.. 90
Vaginal Section—Exploratory and Operative. By T. Shaw Webster, M.B., M.D. C.M., Toronto 290

Pharmacology and Therapeutics.

A Diet of Ground Rock 28
A Dressing for Abdominal Wounds..... 29
Beta-Eucain Acetate, a New Form of Eucain 21
Clinical Observations on Amyloform. By Dr. A. Heddaeus..... 366

PAGE

Dionin: Ethyl-Morphine Hydrochlorate "Merck"..... 359
Euquinine. By Dr. M. Overlach. Greiz.... 363
Excerpts from the Remarks made by Dr. Albert C. Barnes, of Philadelphia..... 25
Index of Diseases with their Modern Treatment 29
Lecithine 27
New Treatment of Leucorrhea and of Gonorrheal Vaginitis 26
The Treatment of Syphilis, with Special Reference to the Best Method of Administering Mercury..... 19

Proceedings of Societies.

Canadian Medical Protective Association. 40
Trinity Medical Dinner 42

Public Health and Hygiene.

First Quarterly Meeting of the Provincial Board of Health..... 103
Report of Second Quarterly Meeting of the Provincial Board of Health of Ontario.. 300
The Liquor Act, 1902..... 163

Selected Articles.

PAGE

Creosotal in the Treatment of Acute Non-Tubercular Diseases of the Respiratory Organs of Nurslings and Children..... 309
Gastro-Enteritis in Infants. By R. D. Moore, M.D., Central Missouri 370
Good, But Hard to Pass 111
Headaches, Their Causes and Treatment. 106
The American Congress of Tuberculosis .. 171
The Characteristics of Genuine Vaccinia—Experience with Glycerinated Lymph and Some Statistics of the Present Smallpox Epidemic..... 303
The Doctor's Office Literature..... 244
The Hippocratic Oath for Nurses 110
The Treatment of Fractures of the Femur with the Ambulatory Pneumatic Splint. 170
The Treatment of Nasal Catarrh by the General Practitioner..... 108
Thyroid Medication in the Treatment of Trophic Troubles of the Extremities. 166
X-Ray Surgery..... 235

The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF MEDICINE AND SURGERY

VOL. XI. TORONTO, JANUARY, 1902. NO. 1.

Original Contributions.

NATIONAL PHYSICAL DEVELOPMENT.*

BY J. N. HUTCHISON, M.D., WINNIPEG.

PLATO hundreds of years ago asked the question, "Is there anything better in a State than that both women and men be rendered the very best?" Truly there is not.

In every age there have been those who have nobly given their genius to the solution of the great problem of the evolution of the human race, morally, physically and mentally.

To the medical profession belongs particularly the guardianship of the physical and mental development of the race; and it becomes us to study the history of the past that we may shape our course for the future, and, perchance, thus be able to solve the problems that have so far baffled all races and all ages.

I propose, in the first place, to enquire into a few of the most important causes which have produced, and are producing, an alarming degeneracy in a large part of the population; causes which can be removed to a large extent. For the present I leave aside the law of heredity, which is always present and always acting.

To produce a strong race, physically and mentally, we must have healthy mothers. To have healthy mothers, we must have healthy girls born, and then see that they are prepared for this paramount and God-given power of reproduction. And right here I wish to sound a loud note of warning as to the damage being done, especially to our girls, by our present system of education.

* Read at meeting of Canadian Medical Association, Winnipeg, September 1st, 1901.

In the past the sole aim of modern education has seemed to consist in an attempt to develop the mind at the expense of the body. Happily we are waking up to this error, and our system of education is being moulded to provide for physical education as well as mental.

But even yet there is room for improvement, in curtailing the number of subjects taught our children, and in lessening the amount of home study. The strain of modern civilization imperatively demands this.

One writer has said of this evil: "We impart to the child by heredity and example an ambition to know everything, or if he does not happen to have that ambition, we proceed to hammer everything into him. We reach out eagerly to grasp and incorporate all the affairs of the universe into our course of instruction. The burden is too heavy, and just as surely as effect follows cause in natural law, so surely is our generation of children being weakened and unbalanced, and a still weaker generation will follow. Our great public school system, designed to bless the nation, will become a national curse. As with individuals, so with races in the struggle for predominance, the weakest will go to the wall."

The advent of the school-going age presents many serious problems. It is contended by many authorities that children are sent to school at too early an age, and compelled to do an amount of mental labor incompatible with the healthy growth of their physical organization. With regard to this it may be stated dogmatically at the outset that as far as children under twelve years of age are concerned the danger of brain overwork has been unduly exalted, for, with a very few exceptions, their natural inattention and playfulness are their safeguards. After twelve years of age the question of brain overwork really begins to assume proportions worthy of serious consideration, for it is then what we may term the fancy work of education begins. They are then subjected to a process of mental gymnastics sufficiently arduous to strain the powers of an adult, to say nothing of children who are approaching that very important physical crisis —puberty.

In this connection I wish to refer particularly to the matter as it affects our girls who are to become them others of the race. Those grievous maladies, leucorrhea, amenorrhea, ovaritis and prolapse, etc., which torture a woman's earthly existence, while indirectly affected by food, clothing and exercise, are really directly affected very seriously by our present method of education, which makes no allowance and virtually ignores the establishment of the catamenia.

This periodical movement, which characterizes and influences woman's structure for more than half her terrestrial life, and which in their ebb and flow sway every fibre and thrill every nerve

of her body a dozen times a year, are intended to be fountains of power, and not hindrances to her.

Woman, in the interests of the race, is dowered with a set of organs peculiar to herself, whose complexity, delicacy, sympathies and force are among the marvels of creation. If properly nurtured and cared for they become a source of strength and power, while if neglected and mismanaged they retaliate on their possessor with weakness and disease. The growth of this peculiar and marvellous apparatus, in the perfect development of which humanity has such a large interest, occurs during the few years of a girl's educational life. No such an extraordinary task as this is imposed on the male.

The importance of having our methods of education recognize this peculiar demand for growth, and for making due allowance for the healthy development of these vital organs, and for the establishment of their periodical function, cannot be overestimated. Who has not seen instances where this special mechanism we are speaking of remained in an undeveloped condition ? The young lady may have graduated from school or college with the highest honors and amidst the plaudits of her admirers, but with a woman's curse—weak and undeveloped organs of generation.

Later on they marry, and are either sterile or suffer all the untold agonies which so often confront the physician. Hence I claim there can be no greater demand on our educational system than that of making provision for the catamenial week, for the process of evolution and for the perfection of the reproductive system. From the ages of thirteen to eighteen, inclusive, opportunity must be periodically allowed for the accomplishment of this task. Both muscular and mental work must be remitted in full or in part to yield sufficient force for the work, for if the reproductive machinery is not manufactured at this period it will never be. If we are to have healthy mothers we must take into account the sexual education as well as the mental.

Every young girl should have three or four days free from school labor each month, or at least a very great relaxation of mental and physical labor, for a careless management of this function is apt to be followed by the most serious consequences. The more completely our system of education ignores this very important matter the larger will be the number of these pathological cases among its graduates.

Dr. Clark in his admirable work says that "the number of these graduates who have been permanently disabled to a greater or less extent by these causes is so great as to excite the greatest alarm, and to demand the serious attention of the community. If these causes should continue for the next half century, and

increase in the same ratio as they have for the last fifty years, it requires no prophet to foretell that the wives who are to be the mothers must be drawn from transatlantic homes;" and yet our much-vaunted system of education takes no cognizance and makes no allowance or provision for this great function, but day in and day out requires the full pound of flesh, and in the end gives us graduates whose brains can manipulate Latin, Chemistry, Philosophy, French, German and the whole extraordinary catalogue with acrobatic skill, while it demonstrates that it is possible in some cases to divest a woman of her chief feminine function, and in others to produce grave and even fatal diseases of the brain and nervous system, and again in others to engender torturing derangements and imperfections of the reproductive apparatus that embitter a lifetime.

I would then advocate most earnestly intermittence, periodicity of exercise and rest; work three-quarters of each month and remission, if not total abstinence, the other fourth, with physiological interchange of the erect and reclining postures, and thus care for the reproductive system, which is the cradle of the race, and in this way assist very materially in producing the highest type of womanhood.

I am also a strong advocate of provision being made in our educational system whereby duly qualified physicians shall give periodical lectures to boys and girls above the age of twelve (in separate classes) on the subject of Sex: its meaning, its importance, its proper development, and the many dangers which beset it, instead of at present allowing our children to go blindly forward absolutely ignorant of its great importance or its great dangers.

There is no question but that in both sexes the psychical effect of puberty often outweighs the physical, especially in boys. It is a period when mental aberrations are not uncommon. The root of the evil lies largely in the mawkish sentimentality and artificial modesty which possesses a large percentage of parents, and prevents them from explaining to their children the mental as well as the physical significance of the changes which they are destined to undergo at this period. The result is, in the case of the girl, that the establishment of the catamenia often comes as a mental shock, which may prove the last straw in nervous breakdown for which her studies have already paved the way. With the boy the result is different, and frequently far more disastrous, for, finding himself in possession of a newly awakened instinct, he is often led into habits which may mean little less than absolute mental and physical ruin. The primary factor of moment is the implantation of the morbid fear, and unless this is quickly eradicated the complete nervous undoing of its victim is in time

effected by misguided advisers, or by the criminal insinuations of a great band of designing quacks, to whose shame be it said a large section of our daily press opens its doors freely, allowing them to flood the country with their villainous publications, robbing their many victims of their hard-earned money, and, far worse still, implanting this morbid fear of mental and physical destruction, and assiduously fanning the flame to a white heat, till they become easy victims of their selfish greed. Now what is the remedy ? The primary responsibility rests with the parents, but to judge by the prosperity of the very lowest and most offensive sort of charlatans, and from the number of persons who, under the scourge of the most pitiable mental anguish induced by these vultures, seek the advice of reputable physicians, it would seem that parents entirely neglect their duty.

As the press is well paid for the use of its columns, we can hardly expect it to come to the rescue, though the pages of our most respectable secular papers are often a disgrace to journalism, defaced as they are by these debasing advertisements.

Now, the only remedy to my mind, and the key to the situation, is the teaching of a practical morality by a sexual education in our schools, such as I have indicated before. If our youth were educated thus they would be warned of the danger of self-pollution and the equally great or greater danger of venereal disease, the result being a practical morality, which would have a great tendency to stamp out these terrible diseases of vice, which are sapping the vitals of our national life.

Another great cause of so much physical weakness, I am convinced, is the eager demand and the very free use of the many patent nostrums which are so vigorously pushed to the front by those who, though posing as philanthropists, are in reality leeches of society. Take, for example, the many catarrh cures, most of which contain cocaine, and thus give temporary relief, and so create a great demand, whereas in the end the result is permanent injury. These quacks, aided as they are by the daily press, are thus able to reap a rich reward with their many cure-alls, which cure when you are sick, and must be taken when you are well to prevent sickness. I wish to declare most emphatically that so much nostrum taking is one of the curses of the day.

It is cause for congratulation that public sentiment is becoming thoroughly aroused as to the danger of that terrible malady, tuberculosis, and that vigorous measures are being adopted to stamp out this destroyer of so many of our stalwart sons and daughters. There is much to be done yet, especially in the way of prevention by a forced quarantine or separation of those afflicted from those who are healthy. Why should our consumptives any more than those afflicted with smallpox be allowed to roam at large, spreading the disease in all directions ?

Another great destroyer of our people is the terrible evil of intemperance, which directly slays its thousands, and indirectly other thousands by laying the foundations of disease, such as cirrhosis of the kidneys, liver, etc. The medical profession has been slow in the past in placing itself on record against this great evil, which is one of the national curses. How many hundreds of deaths are reported under the charitable cloak of typhoid fever, pneumonia, nephritis, peripheral neuritis, etc., whereas these were only exciting causes, the real cause of death being a system already heavily mortgaged by the continuous use of alcohol.

Now, having considered some of the main causes of degeneracy in the race, the question arises as to what shall be done with those who are already degenerate—the insane, the weak-minded, the consumptive, the syphilitic, and the alcoholic, for that we have such in increasing numbers is evident from statistics herewith submitted, and there is no doubt that they are to-day the greatest danger to the body politic.

Let us study the vital statistics of the two great nations of the North American continent.

In the United States there were:

Year.	Population.	Insane.	Idiots.	Total.
1870	38,558,371	37,432	24,527	61,959
1880	50,155,783	91,959	76,895	168,854
1890	62,622,250	106,485	95,609	202,094

showing a marked increase in the number of insane and idiots, relatively much greater than the increase in population. No census of the insane and idiots was allowed by Congress in 1900.

In Canada, using only the four Provinces originally in the Confederation, we have:

Year.		Population.		No. of Insane.
1871	.....	3,485,761	.....	9,422
1891	.....	4,374,515	.....	12,664

showing an increase in twenty years of 34 per cent. in insane and 25 per cent. in population. As the census returns for 1901 were not available, we can give no estimate for the last decade. The Dominion has never taken a census of idiots.

Taking the Province of Ontario alone, while no census returns are given, we have the following statement of the asylums and the number of inmates:

Year.	Population.	No. of Asylums.	Insane.	Idiots.	Total.
1871	1,620,851	3	1,246	120	1,366
1881	1,923,228	5	2,416	234	2,650
1891	2,114,321	6	3,468	420	3,888
1901	2,400,000*	7	4,500	652	5,152

*Approximate.

Increase in population in thirty years, 50 per cent.; increase in insane and idiots in confinement, 277 per cent.

Of course these figures do not show a positive increase, as many of them have been in private homes formerly instead of in asylums, yet it is very strong presumptive evidence of a very material and alarming increase in this class of defectives. Then when we consider that epileptics far outnumber the insane and idiots combined, and that of the death rate about one in seven or more is from tuberculosis in some form, while every village contributes its share of alcoholics, and that the most highly civilized (?) communities are those where Venus, and subsequently Mercury, are most eagerly worshipped, we surely have a condition of affairs demanding the most serious consideration. If the increase of the degenerates was not in greater ratio than that of population the situation would not be so alarming, and we might in time hope to find relief through the "survival of the fittest," but the alarming fact stares us in the face that the increase of this class is out of all proportion to the increase in population.

Now, what shall be done with these unfortunates who are neither mentally nor physically qualified for the duties of life? The ancients in many cases deprived them of existence, but in our age of civilization we must acknowledge the right of the degenerate to existence, though there are some who might feel inclined to deprive them of this, claiming that this right has been forfeited by his mental, moral or physical decay. But we must all agree that the degenerate has no right, either natural or acquired, moral or legal, to produce a posterity cursed with his affliction to be a danger and a burden to your posterity and to mine; and we can never hope to stay the ever-widening tide until it is controlled through heredity itself, by denying to the defective the right to propagate his tainted species. And it is we who are the guardians of the health of the people who must see that this great law of self-preservation is put into force.

The great fountains feeding this stream of degeneracy are alcoholism, syphilis, tuberculosis, epilepsy and insanity, and to a certain degree gonorrhea. While no one will claim that alcoholism is transmissible, a feeble resisting power of both mind and body is transmitted.

Elam, a writer of authority, says: "The most startling problem connected with intemperance is that not only does it affect the health, morals and intelligence of its votaries, but unfortunately it descends to the children, who inherit that fatal tendency and craving for the very beverage that has poisoned their being from its very commencement."

Morrell, another writer, says: "I have never known a patient permanently cured of his propensity to drink whose tendencies

were derived from the hereditary predisposition given him by his parents."

Moreover, the dipsomaniac not only tends to produce a drunken posterity, but a criminal one also.

What of syphilis ? Every one has been witnesses of the horrible effects it produces. The syphilitic begets epileptic, paralytic, neurasthenic and idiotic progeny. We insist that the confirmed syphilitic has forfeited all his marital prerogatives, and should not be allowed to bring into the world beings who can only be a source of anguish to themselves and an expense to the State.

Of tuberculosis we are all familiar, and yet our laws make no provision for either segregation or prevention of marriage. A real decrease in this disease will take place when these people realize that they should not, and the State insists that they shall not, marry.

While gonorrhea does not exert any special hereditary influence, it is a very vital force in the production of many cases of life-long invalidism, and hundreds of innocent wives are to-day suffering from one or more of that long list of female complaints which are the curse of the present day, owing to the husband having been afflicted with this loathsome disease at the time of marriage, perhaps not in an acute or visible form, but with sufficient virility to be communicated. Gynecologists know that a large percentage of their work is the result of gonorrheal infection, and, this being the case, I ask, Are such men and women fit to become the heads of families and the parents of children ?

There is no agreement as to what degree of mental weakness constitutes insanity, and, while there is not much danger of marriage being contracted by the acutely or chronically insane, yet the most complete census fails to return as insane a number of persons who would be considered so by experts. These milder cases are the dangerous ones. Not being reported insane, they are free to marry others alike mentally defective, or to commit any other overt act that they may choose, although we know well that they are tainted through heredity, and that an acute attack of mania may break out at any moment. There can be no greater crime to posterity than to allow this class to propagate itself.

The diseases named are those that have made the nearest approach to total defiance of medical skill. They are diseases whose victims refuse to permit any abrogation of what they deem their rights.

The tuberculitic is notoriously prolific in offspring, and the syphilitic scorns the idea of sexual restraint. The diseases under discussion are those that render men unfit to discharge the duties of good citizenship, and that now morally, and should legally,

debar the sufferer from the crime of transmitting his curse to his descendants.

The only rational solution of the problem is to deny the right of marriage to these defectives. If their disease be curable, they have no right to remain a source of danger to mankind, and if they are incurable, they have no right to perpetuate their infamy or weakness. This is in accordance with justice to the tax-payer, who is already burdened with unreasonable expense in the maintenance of this class. It is in accordance with good statesmanship, which seeks to shield the Commonwealth from elements prejudicial to her welfare. It is in accordance with the spirit of medicine, which for ever strives to lessen and ameliorate the pains and diseases of suffering humanity. It is, in fact, *self-defence*. Nor is precept wanting. The State of Texas prohibits the marriage of epileptics; Massachusetts, syphilitics, epileptics and alcoholics. France and Germany have each done something along this line, and I have here a bill recently passed by the State of Minnesota prohibiting the marriage of epileptics, imbeciles, feeble-minded and insane.

Is it not time that our own Dominion should take some step forward on this question ? Every honest practitioner's heart has often ached as he has been a silent helpless witness to this fiendish crime against humanity. We have seen good, pure, healthy women crippled for life in both body and mind to satiate the passions of defectives, and to produce in turn helpless babes to be forever a curse to themselves and to their families and to the State. Can we, to whom has been intrusted the high honor and responsibility of the people's health, afford to be silent longer, and thus to participate in this insult to humanity, this blot on our civilization, this peril to our nation ?

NOTE.—The writer is indebted to Drs. Clark and Courtney, of Boston, and Dr. Russel, of Midway, Pennsylvania, who have written on different phases of this question.

ADDRESS TO GRADUATING CLASS OF THE TRAINING SCHOOL FOR NURSES, TORONTO GENERAL HOSPITAL.

BY A. PRIMROSE, M.B., C.M. (EDIN.), M.R.C.S. (ENG.).
Professor of Anatomy and Associate-Professor of Clinical Surgery in the University of Toronto, etc.

Mr. Chairman, Members of the Graduating Class, Ladies and Gentlemen:

It has been my privilege to deliver a series of lectures annually to the nurses of the Training School for the past twelve years, but no such responsible duty as that which devolves upon me to-night has hitherto fallen to my lot. In delivering an address to the graduating class, and before an audience of this character, it would appear appropriate to indicate in some fashion the duties a qualified nurse owes to the community, and in turn the obligation of the public to the members of the nursing profession.

The process of evolution which is ever active in life, is an interesting study in connection with the development of the modern trained nurse. It has been stated that "nursing is as old as the human species," but nursing as a distinct profession is wholly a thing of modern development. Mrs. Fry, who was at the head of the Protestant Nursing Sisters in London in 1840, is spoken of as the founder of nursing. She was the head of the first nursing institute. In the middle ages and at an earlier date nursing was done as part of a religious duty solely by the members of religious communities. The remarkable advances which were made in scientific medicine about the middle of the last century demanded something more than the crude material which was then obtainable among the nursing class. It was about this time that Charles Dickens wrote his graphic picture of the nurse of his time. We are all familiar with the characters of "Sairey Gamp" and "Betsy Prigg." These were mere time servers, and exercised few of the qualities of kindness and sympathy in dealing with the sick which are characteristic of the nurse of to-day. "She put soap in my mouth," said the unfortunate patient, feebly. "Couldn't you keep it shut, then?" retorted Mrs. Prigg. "Who do you think's to wash one feater and miss another, and wear one's eyes out with all manner of fine work of that description, for half a crown a day! If you want to be tittivated you must pay accordin'!" The patient was kept in holy terror of his nurse, who ruled him with a rod of iron. Dickens' writings awakened a public remonstrance and created such a universal sentiment of resentment that a new

order of things was soon ushered in; thus we find that Florence Nightingale, with a band of trained nurses, was sent out with great enthusiasm to tend the sick and dying and minister to the sufferings of the soldiers and sailors during the Russian war. When this band of workers reached the Crimea there were 2,300 patients in the hospital at Scutari. The beds were, it is said, "foul with every kind of vileness." "The mattresses were strewn two deep in the corridors, the wards were rank with fever and cholera and the odor of undressed wounds." "The army of sick and dying was increased after Inkerman to 5,000." What a field for active work, and if you ask for a record of the result you find it stated in cold statistics; after the advent of these trained nurses the death-rate was reduced from 42 to 2 per cent.

Compare the state of affairs which Florence Nightingale found at the Crimea with the conditions obtaining lately in South Africa, and you have a graphic picture of the complete revolution which has occurred in the methods of caring for the sick in war, all this being the result of the advent of the skilled nurse upon the battle-field. For example, Mr. Frederick Treves describes the invaluable services of four lady nurses after the battle of Colenso: "The nurses were at it all Friday night and all Saturday, they had no sleep, and the splendid work they did is beyond any praise. How they managed to keep about I don't know. . . . Better nurses and more devoted women I never met. They worked night and day, and their work was the very best." Words of that character coming from the lips of a well-known surgeon belonging to the active staff of a hospital possessing one of the largest training schools in London, mean a great deal. They mean that the sufferers enjoyed all the benefits to be derived from skilled nursing, and this in turn meant avoidance of much unnecessary suffering and the saving of many lives.

In England, the Sisterhoods at first afforded opportunity for definite religious work in hospitals among the sick. This class was succeeded by a large number who, by stress of circumstance, were forced to earn their bread, and found a suitable field for honest work in nursing the sick; then, too, a class of well-to-do women, who sought relief from the monotony of idleness, tried nursing, with the hope that the variety and excitement of a nurse's training might give some purpose to their life. With this last class nursing thus became a sort of fashionable pastime.

It was in the early sixties that an imperative demand was made for better nursing. This first of all arose from the fact that the public insisted on something better than the "Sairey Gamp" type. A second factor in this demand was the necessity for training, recognized as essential from the standpoint of the nurse herself, but perhaps the most powerful factor in creating a demand for a

thoroughly trained and skilful nurse came from the medical profession, and skilled nursing became a necessary feature in the modern advance of scientific medicine. In England, the first school of training for nurses seems to have been that formed in connection with St. Thomas' Hospital. This was known as the "Nightingale School of Training," and was founded as a national act of gratitude for the services rendered by the woman who had saved the lives of so many British soldiers and sailors. In 1862 University College Hospital was placed in charge of the "Community of All Saints." In America, reform was instituted in the nursing of the sick in hospital some years later. Thus the Bellevue Training School for Nurses in the Bellevue Hospital, New York, was established in 1873, and other schools soon followed.

It is difficult to over-estimate the boon to a community of the existence in their midst of an army of well-trained nurses. To a very large extent they are the instructors of the people concerning many essential facts, the recognition of which is necessary for the prevention of disease. Many sanitary and hygienic rules are well taught by the trained nurse. She should become an apostle of sound information on these subjects. Correct ideas are propagated by her concerning the questions of food, clothing, and matters of personal hygiene. It is not necessary nowadays to demonstrate the comfort afforded in a household by the presence of a trained nurse in serious illness. This is fully recognized by all, and the value of such services to the public is a priceless one. Speaking for the medical profession, one admits frankly that one feels very dependent upon the services of a competent nurse in cases of severe illness, and on the other hand a medical man is severely handicapped if he, by chance, places confidence in a nurse, during the conduct of a critical case, who is found to be incompetent and badly trained.

It is, of course, obvious to all that the nurse should in no way usurp the functions of the physician. Unfortunately nurses have from time to time essayed to do so with most disastrous results, and one may emphatically state that there is no greater danger in a serious case of illness than may arise from the attempt of the nurse to divide responsibility with the medical attendant. It may seem incredible, but it is true, that in some instances a nurse has been known to assume complete responsibility and undertake to override or ignore the orders received from the physician. There can be no two opinions about this matter. The physician is responsible for the conduct of the case, and the nurse is there to carry out his instructions. In an article published not long since in *The Nineteenth Century,* the writer (under the title "Nurses a la Mode") makes the assertion that the nurse is quite ready to assume the role of the doctor. This, of course, is a very hasty

generalization as applied to the whole nursing community and is based upon the circumstance that in rare instances a conceited young woman may scoff at the medical attendant, characterizing him, perhaps, as being behind the age. She then airs her technicalities in the hearing of the unlearned with perhaps the result of making her employers believe that she is a competent judge of such matters. This condition of affairs is no doubt occasionally due to faulty training, the nurse has had too much instruction in scientific theory and has not confined her attention sufficiently to the more practical part of the nurse's training. There should be no uncertainty on the part of the nurse as to her attitude towards the medical profession; no code of ethics need be written to point out her duty here, because common sense dictates the prudent course, and common sense should guide her. Among nurses, however, as among other classes of the community, there are occasionally those who make themselves look very ridiculous. Under the heading of "The Irrepressible Nurse," appears an article in a recent number of the *British Medical Journal,* describing the following incident: A doctor was employed by a gentleman to attend his wife, who was ill. The following morning he received a letter from the husband stating that he had just secured a nurse who would only undertake the case in conjunction with her own doctor. The man went on to say that he had no alternative, but graciously added: "If on any future occasion I require medical advice, I shall be pleased to have your services." The attitude of a nurse thus "touting" for a doctor is, to say the least of it, most unseemly.

An article which appeared recently in a well-known English periodical may be characterized as a most unfair attack on the nursing profession, but it attracted considerable attention because it came from the pen of a well-known writer, and her premises were correct. The fallacious part of her argument, however, was that her conclusions were generalizations from particular and fortunately rare instances. She painted the nursing profession as mainly composed of a certain type of individual, whilst the individuals whom she described are only to be found in very exceptional cases, the ranks of the profession being filled, as a fact, with noble women whose lives are dedicated to earnest and conscientious work among the sick and suffering. The nurse was depicted in the article in question as having no respect for privacy, silence, obedience, or discipline; she exhibits false pride in her relation to the household in which she is employed, and, whilst it is admitted that many have a *bona fide* hope of doing something to help humanity, others are described as pure adventurers. "The pity is," the writer goes on to say, "that whatever the intellectual calibre, the motive, the temper and temperament, the cer-

tificate for all is the same." Nurses are portrayed before the public as careless in not changing their dress when leaving infectious cases, and thus they are held responsible for spreading disease. It is even suggested, as if it were the routine practice of a trained nurse, that they are guilty of shaking sheets from a window which had been taken from the bed of a scarlet fever patient during convalescence, thus distributing infective material which had separated during the process of peeling. The author appears disposed to consider that the modern nurse is arrogant and dictatorial, flippant, flighty and frivolous, that she is over-trained and underbred, an intriguante of the first water, a matrimonial adventuress, and an expensive luxury of doubtful utility. The picture is, of course, a most unfair one, and yet perhaps it is wise that such things should be written. It suggests the fact that in the nursing profession, as in the medical, there exist individual instances of those who cast discredit upon a noble calling, and no stone should be left unturned to protect the community and to rid the profession of such unworthy members. "Some years ago a nurse was supposed to be a ministering angel; Mrs. Gamp being dead, her successor was said to be a flawless being, of skill and unselfishness all compact. Now she is described as vain, frivolous, self-seeking, etc." Nurses are, however, not so degraded or demoralized. The training of the modern nurse tends to produce and does produce a very different individual. Let us see what is required of her. Her evolution has thus been described by a head nurse: "In order to become a nurse a woman must be, first, at least 21 or 23 years of age before she can be admitted into a hospital for training. She must produce proofs of unimpeachable character, and in most instances also of some social position. Very probably she may be required to pay fees of a smaller or larger amount; at any rate during the term of her training she will be paid a salary which no self-respecting housemaid would accept. After being selected, perhaps, out of some forty or fifty applicants, she will be admitted a probationer. She will then be required to rise about six in the morning, to live on particularly simple fare, to stand or walk about the wards for ten or eleven hours a day, to do much laborious work, which is commonly described as 'menial,' to lift heavy and helpless patients, to perform many offices which are often most repugnant, to witness scenes of suffering and sorrow which are most depressing, to be entrusted with the execution of medical instructions generally requiring technical knowledge and extreme carefulness, and with other responsibilities often involving the life and death of a fellow creature; to do all this and much more which it is unnecessary to particularize under rigid discipline and oversight, day after day, week after week, and year after year, with at most

three weeks' intermission in every twelve months." We must admit that a woman who can complete three years of such arduous, bodily and mental labor must possess not only a sense of devotion to duty in a degree uncommon among most women, but also moral qualities of an unusually high order. Such women endowed with the qualities of tenderness, faithfulness and devotion to duty, possessing the knowledge and skill which has been acquired after an efficient course of practical training in their chosen profession, play an important part in our modern civilization. The charge of unfaithfulness is therefore adequately refuted, and we recognize that the ranks of the profession are filled with women who too often have been required to demonstrate their willingness to sacrifice their lives and health in the hospital or sick-room, who do noble work among the poor, "who think no trouble, toil or fatigue too great if it will ease the pain or add to the comfort of those they tend, who give up every personal comfort for the sake of their work and endeavor as far as they can to do their duty."

The experiences of a nurse, or that of a physician, are supposed by the uninitiated to produce a certain callousness, an indifference to suffering, but this is quite an erroneous view to take. The author of "Rab and His Friends" thus writes an apology for medical students in their eagerness to see an operation, and it applies equally well to the experiences of a nurse. "Don't think them heartless, they are neither better nor worse than you or I; they get over their professional horrors and into their proper work —and in them pity, as an emotion, ending in itself, or at best in tears or a long-drawn breath, lessens, while pity as a motive is quickened and gains power and purpose. It is well for human nature that it should be so."

The training of the nurse is a problem the solution of which is still in process of development. There is doubtless a danger of over-training. The tuition of a nurse must not approximate that of the medical student. It must be remembered that the duties of the medical attendant are very different from those of the nurse. The nurse must, however, be able to act intelligently, she must have a knowledge of the laws of life and health, of the structure of the body, and an outline of anatomy, too, is essential. Her faculties of observation, perception and accurate reasoning must be cultivated. She must work intelligently, and not in a mere mechanical fashion. Then there are those "intangible qualities of womanliness, sympathy, gentleness, tact and refinement," which, with unswerving loyalty to the best traditions of her noble profession, go to make up the ideal attendant in the sick-room.

A writer recently protested against the course taken by the matron of an English hospital, who, addressing some young nurses,

stated that "she considered one of the first duties of a nurse was to make herself look as pretty and charming as possible." That seems to strike a sympathetic chord in the mind of one who has some taste for the beautiful, but one must meekly bow to the judgment of the more mature and sober critic, who suggests that such advice is pernicious and who would rather advise the nurse to be "quiet and modest in demeanor, or to remind them that happiness mostly goes hand in hand with contentment."

The efficiency of the work done in the training school of the Toronto General Hospital is well known. Nurses who have graduated from this institution have encountered little difficulty in finding opportunity for useful work. Not only is this the case in private nursing, but various institutions throughout the country have been officered by graduates from this training school. I am sure the Lady Superintendent is to be warmly congratulated upon the marked success which thus attends her efforts to maintain a high standard of education. The mere fact that since 1885 (*i.e.*, in sixteen years) no less than twenty graduates of this school have been appointed as Lady Superintendents of other hospitals, speaks volumes for the exceptional efficiency of the school. Of the twenty superintendents thus appointed, nine were to positions in hospitals in the United States, and the other eleven in Canada.

If one were asked to indicate the weak point in our present system, one would state that the great trouble at present is lack of organization. This we believe to be a great hindrance to development and progress in the nursing profession. There should undoubtedly be a standard of education and of etiquette governing the members of the nursing class. There should be, too, some control of fees. The problem is one which cannot be discussed off-hand, but which requires some very careful consideration on the part of experts. Some serviceable form of central control after a nurse has passed out from the training school is surely necessary. It is demanded for the protection of the public, the medical profession and for the nurses themselves.

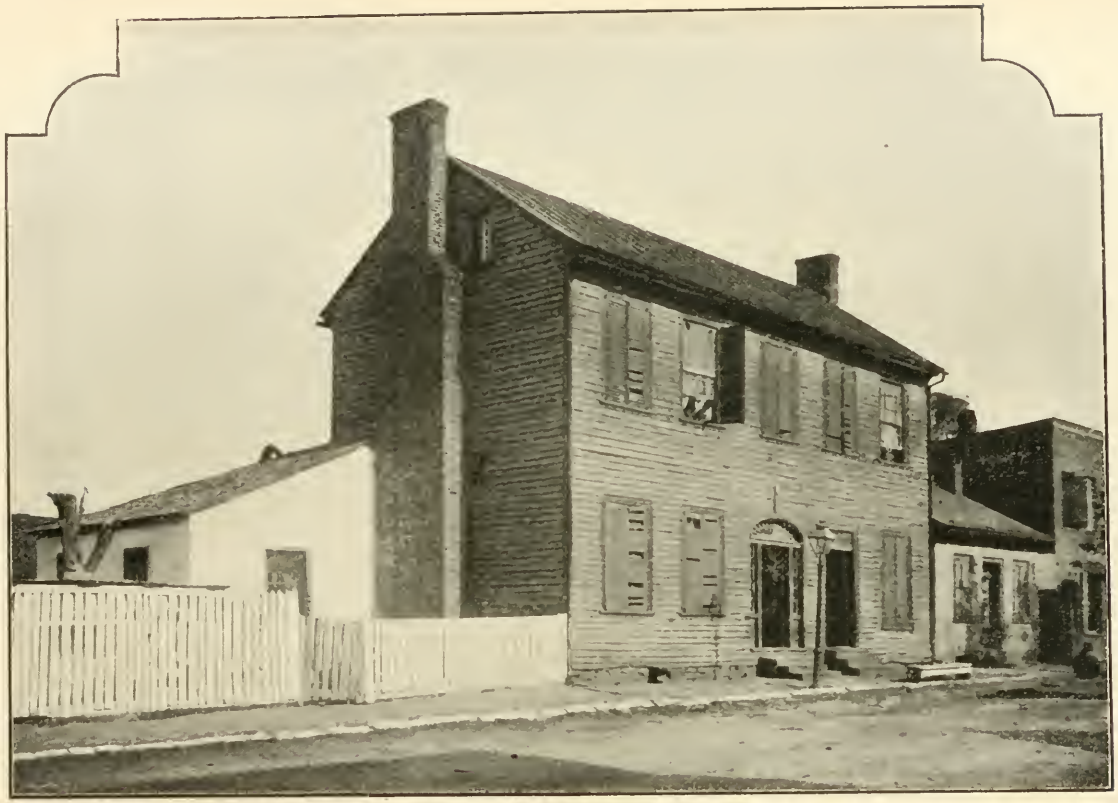
It is now my pleasing duty to congratulate the members of the graduating class upon having successfully terminated their three years of training, on having passed the examinations and having obtained the diploma which signifies that they are fully equipped for their life's work in the profession of nursing the sick. With the nurse, however, as with the true physician or surgeon, the fact that a diploma has been obtained does not mean that one's education has been completed; both nurse and doctor continue to be students, and, in fact, on graduating have just entered upon a wider field of usefulness in which the best of both professions find unlimited opportunity for further study and development, and, by strict attention to duty, become more and more efficient in the service of suffering humanity.

(Loaned by Mr. E. H. Fox, of Danville, Ky.)

THE MONUMENT ERECTED BY THE KENTUCKY STATE MEDICAL SOCIETY IN 1879, TO THE MEMORY OF DR. McDOWELL,

Who performed, at Danville, Ky., the first ovariotomy on record.

Loaned by Mr. E. H. Fox, of Danville, Ky.)



Operating Room, at one time had a skylight.

Dr. McDowell's Residence, built by him about 1817.

Office.

There once stood in the yard a little one-room brick building, and tradition says that it was once occupied by James K. Polk, while Speaker of the National House of Representatives, and who journeyed all the way from Nashville, Tenn., to have a stone in the bladder removed by Dr. McDowell. It was successfully done. Polk afterwards became President of the United States.

Pharmacology and Therapeutics.

IN CHARGE OF
A. J. HARRINGTON, M.D., M.R.C.S.(ENG.)

THE TREATMENT OF SYPHILIS, WITH SPECIAL REFERENCE TO THE BEST METHOD OF ADMINISTERING MERCURY.*

BY WINFIELD AYRES, M.D.,

Genito-Urinary Surgeon, Bellevue Hospital, O. D. P., New York; Instructor in Genito-Urinary Diseases in New York University and Bellevue Hospital Medical College; Instructor in Genito-Urinary Diseases in the New York Post-Graduate Hospital, etc.

THE author calls to mind the facts that mercury has been used in the treatment of syphilis for over four hundred years, and there are few physicians to-day who do not use it in some form. Although the method of treatment with mercury is still discussed, he is firmly of the opinion that there is no hope of eradicating the disease unless the full dose is given constantly for something like three years. The treatment should begin just as soon as the diagnosis can be made. There is no ground for supposing that enucleation of the chancre has the effect of aborting the disease. If a positive diagnosis cannot be made from the appearance of the initial lesion, general tonic treatment should be instituted.

In some cases the protiodide controls the symptoms, but in the majority it is of very little use. Experiments with Mercurol were conducted at Bellevue Hospital, for eight and a half months, with 180 cases. The histories of 95 of these are recorded; the remainder could not be kept under observation, and are therefore passed over. The dosage of the Mercurol, regulated either by reaching the point of tolerance or control of the disease, varied from one half to six grains. In 64 of the 95 cases the disease was controlled as follows: in two weeks, 8; three weeks, 12; four weeks, 14; five weeks, 6; six weeks, 5; seven weeks, 2; two months, 8; ten weeks, 2; three months, 5; and four months, 1. The remainder are marked thus: decidedly improved, 17; improved, 8; no improvement in two weeks, 3; no improvement in four weeks, 1; and no improvement in three months, 2. The latter were all dispensary patients, and it is uncertain whether they took their medicine regularly.

* Abstract of an original paper by the author in *The Lancet* (London, Eng.), October 19th, 1901.

The writer states that his plan was to increase the dose steadily from one grain until the symptoms were controlled, or until there was a slight tendency on the part of the teeth and gums to become tender. If the symptoms were not controlled before the physiological effect of the Mercurol made itself felt, small doses of potassium iodide were added, and in every case where the Mercurol was taken according to directions, with the exceptions noted above, the symptoms were controlled.

In 67 out of the 95 cases tabulated, no other medicine than Mercurol was given. In 15 out of the remaining 28, the addition of iodide of potassium was found to be sufficient to control the disease, while in 6 others the addition of an iron tonic sufficed for this purpose.

The cases are not reported at length, but a few of the more remarkable results and some cases in which other medicines failed to control the disease are briefly mentioned.

Case 1 had been taking bichloride for one month with very little improvement. Under Mercurol, three grains maximum dosage, the symptoms were under control in five weeks.

Case 2 had been under biniodide of mercury (one-sixteenth of a grain) and potassium iodide (five grains), which caused iodism. His symptoms were controlled in one month under half a grain of Mercurol.

In Case 3 unguentum hydrargyri had failed to control the disease. The patient was put on Mercurol and the dosage pushed up to six grains three times a day. The disease was thoroughly under control in seven weeks.

Case 4 had been on three-eighths of a grain of biniodide of mercury and twenty grains of potassium iodide for two months. The medicine caused nausea and vomiting. Having been put on Mercurol and the dosage gradually increased to five grains three times a day, the symptoms were controlled in three weeks.

Case 5 had been taking hydrargyrum bichloride (one-twelfth of a grain) three times a day, under which an eruption on his face had faded, but the eruption on his body still persisted. His symptoms disappeared in two weeks under a maximum dose of three grains of Mercurol three times a day.

Case 6 had been on bichloride of mercury (three-sixteenths of a grain) for three months, in spite of which he had palmar syphilide of an eczematous variety. All appearances of the disease disappeared after he had been one month on Mercurol, his maximum dose being three grains three times a day.

Case 7 had been taking one-quarter of a grain of Mercurol and fifteen grains of potassium iodide, with the result that the eruption had decidedly improved, though not to the extent that it should have done. There were thickened red patches on the face, covered with scaly eruptions. The symptoms almost entirely disappeared within three weeks under a maximum dosage of five grains of Mercurol three times a day and fifteen grains of potassium iodide.

Case 8 had been treated with inunctions of mercury, under which the eruptions disappeared, but the pains in the bones still persisted. He was relieved in three weeks under a maximum dosage of four grains of Mercurol three times a day.

Case 9 had been taking other forms of mercury for six months. The form which had done him most good was bichloride. Yet one-fifth of a grain did not entirely control the disease. He had been taking that for two months when he was placed on Mercurol. The dosage in his case was pushed up to six grains three times a day, and at the end of seven weeks all his symptoms had disappeared.

Case 10 had been taking medicine off and on for two years, but his symptoms never disappeared entirely. After being two weeks on Mercurol (two grains three times a day) with the addition of potassium iodide, all symptoms had disappeared.

Ayres, in conclusion, states that he uses Mercurol in his private practice to the exclusion of all other drugs. His experience is that he gets better results. He has found no form in which mercury can be given with such good results as in that of Mercurol.

BETA-EUCAIN ACETATE, A NEW FORM OF EUCAIN.*

BY DR. PAUL COHN.

Everyone who has had occasion to experience the beneficent action of cocain has probably also encountered the unpleasant effects which the drug, so absolutely necessary in surgery, more especially in its ophthalmological department, exhibits in individual cases. Leaving its marked poisonousness out of account, I would mention only the mydriasis inseparable from its employment, the by-effect of all others which forces itself upon the attention of the ocular surgeon. Some twelve years after the introduction of cocain into ophthalmological practice, Vinci, in 1896, first recommended Eucain in its place. An exacter experimentation, however, soon showed that the new preparation had some serious drawbacks; and so the very next year Beta-Eucain, an improved form possessing all the advantages of the original preparation without its disadvantages, was prepared. It was put upon the market by the Schering Factory as a hydrochloric acid salt, and has been tried and recommended by numerous authorities. The exceptional cases in which its effects have not been satisfactory are probably such in which it has been employed in too great concentration. We have investigated this aspect of the subject in our own Poliklinik during the past winter, and have found in a series of over 100 eyes in

* From the Poliklinik of Professor Silex, Berlin.

which it was tried that a 2 per cent. watery solution was quite sufficiently strong to give thoroughly satisfactory results.

Very recently the Schering Factory have prepared Eucain in a new form, that of an acetic acid salt. It is superior to the hydrochlorate in that it is very readily soluble in water, even to the extent of 33 per cent. In other respects it behaves exactly like the hydrochloric acid salt; thus the addition of an alkali causes precipitation of the free base, and it can be sterilized by boiling without undergoing decomposition.

In Professor Silex's Poliklinik the new drug was tried upon twenty normal eyes, and upon eighty affected with various pathological conditions. Special attention was paid to the indications for its use in ordinary office practice. It was employed in a 2 per cent. watery solution, after it had been found that stronger concentrations did indeed have more rapid effects, but were followed by undesirable symptoms of conjunctival irritation.

In regard to the action of Acetate of Beta-Eucain upon the normal eye, the testimony of the patients experimented with was contradictory. Some, even a slight majority of the number, stated that there was a little burning after the instillation of the first drop, which, however, never lasted more than half a minute, and could absolutely not be called painful. Others, including the author of this paper himself, found that it caused no burning at all, and that in fact the instillation of a drop of 2 per cent. cocain solution was more disagreeable.

Objectively there occurred in most cases a slight conjunctival hyperemia after the instillation of the first drop; exactly the contrary to the ischemia of the conjunctival vessels caused by cocain: together with a moderate amount of tear secretion. These symptoms disappeared in thirty to forty seconds. After three minutes, during which time three drops had been instilled, the corneal anesthesia was complete; one minute later only the conjunctiva became anesthetic. The anesthesia lasted from ten to fifteen minutes, and then slowly diminished.

There was never any disturbing influence noted upon the pupillary dilatation; which was in great contrast to the cocain mydriasis, which often lasts for hours, and is practically very troublesome. There was no disturbance of accommodation at all. The tension of the bulb always remained unchanged, whereas, as is well known, even a very few drops of cocain cause hypotony of the bulb.

There was never any injury to the corneal epithelium from the Eucain, though it must be remarked that this can be avoided even with cocain if, as is customary in our Poliklinik, the eyes are closed after the instillations, and the lids covered with a moist pledget of sublimate cotton.

Symptoms of general intoxication, such as syncope, vomiting, etc., were never noted, no matter how large a dose of the Acetate of Beta-Eucain was employed.

As regards the pathological cases in which the drug was tried, they were confined to such as belong to what may be called minor surgical ophthalmology, and which are generally treated in the practitioner's office.

In ten cases foreign bodies, most often splinters of iron, were removed from the cornea. After four or five drops the cornea was sufficiently anesthetic to permit of their removal, even when deeply seated. Small traumatic infiltrations left after the removal of a foreign body were curetted out with equal readiness.

Four or five drops were also sufficient to permit of the galvanocaustic treatment with the platinum point of infiltrations, corneal ulcerations, erosions, and pterygia; which latter are treated by this method in our Poliklinik with the best results. This amount sufficed to render the little operations entirely painless; and the same holds true for the tattooing of corneal opacities and leucomas.

The Acetate of Beta-Eucain was just as useful as cocain in diseases of the lachrymal apparatus; slitting of the canaliculus, the introduction of sounds, the lavage of the duct could be effected without any pain to speak of after the instillation of a couple of drops of the 2 per cent. solution.

A similar small amount was all that was required for the removal with the scissors of several granulation nodules appearing after strabismus operations, some of which were quite large. In similar manner a small broad conjunctival papilloma was ablated.

Ten patients suffering from chalazion were relieved of their trouble without much pain after the instillation of three or four drops of the 2 per cent. solution of Beta-Eucain Acetate by incision from the conjunctival surface, followed by curetting out of the contents of the tumor and the excision of a piece of the tarsus.

The subconjunctival saline injections furnished a further indication for the use of the anesthetic. This process has been employed with good results in our clinic for opacities of the vitreous, choroiditis macularis, ablatio retinæ, and old keratites and corneal opacities. A half to one syringeful of a 4 per cent. solution is injected every fourth or fifth day. After the instillation of three drops of the Beta-Eucain Acetate solution the injection, and more especially the introduction of the canula, could be effected even in children with hardly ever any pain. In forty injections pain of any severity and reddening of the bulb was observed only twice, and these were in eyes that were already moderately injected from chronic inflammation or increase of ocular tension.

We find that the action of the Beta-Eucain Acetate upon all these eyes may be summarized as follows:

Its anesthetic power is equal to that of Beta-Eucain Hydrochlorate and cocain.

Poisonous symptoms of any kind were never observed, even when, for various reasons, it was administered very freely. Nor did it have any deleterious influence on the corneal epithelium.

Disturbances of accommodation or mydriasis were never noticed; nor was there ever any change in the ocular tension.

The very slight disadvantages inherent to the employment of the drug, such as the slight burning and lachrymation shown by most of the patients, and the very moderate conjunctival hyperemia, have no weight at all compared with its good points. In certain cases this last effect is even a useful one, as for example in making the subconjunctival injections, when the dilated conjunctival vessels can be more readily seen, and thus the formation of slowly absorbed, and when considerable very disfiguring, hemorrhages will be avoided.

It is as yet only a matter of theoretical consideration whether the Beta-Eucain Acetate hyperemia may have a favorable effect on various corneal or conjunctival disease processes.

Repeated sterilization by boiling did not alter the qualities of the anesthetic in the slightest.

Finally, it is of interest to the busy practitioner that the price of the Beta-Eucain Acetate is half that of cocain.

Thus Beta-Cocain, both in the form of the hydrochlorate and the acetate, is a good local anesthetic for the practitioner to employ, and should be used instead of cocain, more especially in minor ophthalmological surgery, in much of his office work. It must not be forgotten, however, that the indications for the employment of the Eucain differ slightly from those for cocain. The hyperemia that is occasioned by Beta-Eucain renders it unsuitable for cases in which the tissues of the anterior portion of the bulb are already hyperemic or irritated; but in all others it should be applied in its stead. As we stated in the beginning of this article, solutions stronger than 2 per cent. caused unpleasant irritation, and we did not employ it any more concentrated in the eye. Undoubtedly, however, the ready solubility and non-poisonousness of Beta-Eucain Acetate will lead it to be used in greater strength in other departments of surgery, and in dentistry, where it will be a welcome enrichment of the practitioners' armamentarium. It will probably not be long before these further fields of usefulness will be investigated.

In conclusion I desire to thank my honored chief, Professor Silex, very sincerely for his support and aid in these investigations. —(Translated from *Die Medicinische Woche*, Berlin, September 9th, 1901.)

EXCERPTS FROM THE REMARKS MADE BY DR. ALBERT C. BARNES, OF PHILADELPHIA.*

THE paper of Dr. Reyburn just read merely reiterates the well-known fact that petroleum, when administered internally, is not absorbed from the gastro-intestinal tract, but, as is equally well known, a remedy may have the most pronounced physiological effects purely on account of its mechanical properties. Dr. Robinson, of Philadelphia, states in the *Medical News*, of July 14th, 1900: "In over fifty selected cases where nutrition, digestion and body weight were impaired, and the purest oil administered in one or two-dram doses, four times a day for periods of from three to six months, there was in every instance increase in weight and improvement in health, strength and feeling of well-being. The gain in weight was $5\frac{1}{4}$ to $23\frac{1}{2}$ pounds. There was no other change in living conditions, or medication which might have caused these improvements." These clinical effects have been noted and recorded by a number of other observers. The manner in which petroleum accomplishes these results is shown by the laboratory experiments described in detail by the speaker. It was found that the addition of petroleum to albumen digested by an artificial gastric juice under exactly the same conditions as prevail in the human system, very materially hastened and facilitated the process of digestion; it was more rapid and complete than in the same experiment conducted without petroleum. Furthermore, it was shown experimentally that the mechanical influence of petroleum upon the churning, peristaltic movements of the upper portions of the small intestines favorably influenced the processes of absorption. In view of these experiments, it can be safely concluded that the manner in which petroleum beneficially effects nutrition is by facilitating, expediting and completing the processes of digestion and assimilation of food. Another experiment described by the speaker was that conducted upon a man with marked malnutrition, in which the changes in metabolism were accurately studied for a period of three weeks, by feeding the patient upon a normal diet, and then determining the daily elimination of nitrogen in the urine and feces. It was found that under the influence of petroleum the retention of nitrogenous matter in the system was increased. As is well known, the only method of determining the influence of any agent upon nutrition is by determining the daily body elimination of nitrogen in the urine and feces; if a patient's retention of nitrogen is increased, the most important element of the tissues is conserved, and nutrition is correspondingly improved. Furthermore, the facts that petroleum passes through the intestines

* Read at the second annual meeting of the American Therapeutical Society, held at Washington, D.C., May 8th, 1901.

in its original form, and that it is a solvent of many remedies administered for their antiseptic and astringent influence upon the intestines, indicate a useful field for petroleum as a vehicle. Robinson states (*ibid.*): "I have extensively given from five to ten grains of salol in two drams of this oil, four times a day, and reclaimed the oil from the feces, and found it to contain some salol and its components, phenol and salicylic acid. This proves the carrying of a chemical antiseptic and antiferment through the entire canal." This work has been corroborated by numerous other observers. The speaker stated, in conclusion, that the bulk of experimental and clinical evidence tends to show that petroleum is entitled to a wider field of application in medicine.

NEW TREATMENT OF LEUCORRHEA AND OF GONORRHEAL VAGINITIS.

BY DR. PH. CHAPELLE, PARIS.

YEAST in the treatment of chronic leucorrhea, and vaginitis due to gonorrheal infection, has recently been tried with considerable success. Dr. Landau, of Berlin, was the first to apply it locally by injection for troublesome vaginal secretions, and found small quantities produced a rapid and complete arrest of the discharge after a few weeks.

Murer, in France, has used it in the same manner in gonorrheal discharges from the vagina, and found yeast most effective in suppressing inflammation of the mucous membranes, which regained their normal color rapidly. In the gonorrhea of men, however, it was not uniformly successful. In leucorrhea and gonorrheal vaginitis there occurs a substitution of a morbid fermentation for a non-dangerous yeast fermentation, for the yeast-cells (saccharomyces cerevisæ) appear to devour the morbid germs, which set up inflammatory conditions.

Backer, who has made a study of the various ferments, is of the opinion that the natural toxines, however altered, may in the treatment of disease be replaced with advantage by ferments in the living state. He considers good health to be one of normal fermentation, and bad health one of morbid fermentation.

Hence, pure ferments like yeast attract pathogenic germs, allow themselves to be penetrated by them and, once enveloped, destroy them by a true phagocytosis. D'Arsonval and Charrin have also made a series of investigations on the reciprocal action of microbes on vegetable cellular tissues, and it would appear that in the case of yeast, in its struggle with pathogenic germs, it expends its energy as a ferment, acting consequently by reason of its phagocytic properties.

We see, therefore, why the treatment of leucorrhea and other vaginal discharges with yeast is based on reasonable grounds, and it should, therefore, be tried in obstinate cases, which do not yield to tonics and the usual local treatment.

The application of yeast in this connection is not convenient, owing to its keeping badly, its offensive smell, and the difficulty of obtaining fresh supplies, as well as its inconvenient, frothy nature, which makes it difficult to be retained when injected. This, however, can be overcome by using the pure desiccated form, known as Cerevisine, which may be exhibited in the form of a pessary of cocoa butter filled with Cerevisine, and placed in position on going to bed, or a paste made up with glycerine of starch, and retained with a tampon of absorbent cotton, or again applied by dipping absorbent cotton in a thin paste of Cerevisine and water. The quantity for application is not important, as it is perfectly harmless, but from one to two teaspoonfuls can usually be introduced and retained in the vagina during the night, which will give more cleanly and comfortable results than injections of brewer's yeast during the day.

LECITHINE.

LECITHINE (λέχιθος, derived from a Greek word meaning yolk of egg), found in semen, brain matter, nerve tissue, the leucocytes of the blood, the yolk of egg, and many other sources, was first discovered by Gobley and studied later by Strecker. Its therapeutical value as an assimilable form of organic phosphorus, has been acknowledged by a number of authorities who have given this subject attention. Chemically, LECITHINE is found to be made up of certain *acid glycero-phosphates,* and it is unnecessary to add that the phosphorus of the human organism exists as glycero-phosphates.

The first important studies connected with the role of Lecithine in nutrition, are due to Danilewski. In 1897 the "Societe de Biologie de Paris" received on this subject an extremely interesting communication from Charrin. Selensky (a pupil of Danilewski) has been able to show that its action on the red corpuscles is remarkably beneficial. Numerous authorities have since studied the physiological effects of Lecithine, and all agree that it assists nutrition, favors assimilation of nitrogen and phosphorous compounds, so essential to the economy. The conclusions of Desgrez and Ali Zaky, recently published by the "Societe de Biologie," are on the same lines, so also are those of Gilbert and Fournier, who treated a number of phthisical and neurasthenic patients with results showing improvement in appetite, weight, strength and general health.

Lancereaux, Gilbert and Fournier (*Bull. de l'Acad. de Med.*

de Paris) have used Lecithine in the various stages of epuisement occurring in diabetics, with the happiest results, particularly in the more advanced stages, with a daily depreciation of the patient's weight and vitality.

We are therefore justified in concluding that Lecithine is worthy of trial as a means of checking the drain on the vital nutritive physiological functions, caused by pathological conditions.

There is some difficulty in preparing and preserving Lecithine in a pure and active state; this, however, has been overcome by Vial of Paris, by diluting it with oil and administering it in capsules, representing one grain each. By these means the disagreeable taste of Lecithine is avoided, and its active properties preserved.

One capsule three times a day, with meals, is the usual adult dose.

M. Serono, of Turin, has also used subcutaneous injections of Lecithine on the human subject.

A DIET OF GROUND ROCK.

THE report of the Connecticut Experiment Station just issued contains (page 165) a somewhat startling arraignment of the alum baking powders with which the country is flooded. Of the fifteen brands analyzed, about every imaginable adulteration was discovered, varying from sulphuric acid (22 per cent.) to ground rock! The latter form of adulteration is characterized by the report as "a particularly reprehensible adulteration, because very likely to prove injurious to health," which may well be believed, considering that it was found in one sample to so large an extent as over 25 per cent. Of this baking powder the report says:

"This preparation contains more than 25 per cent. of a ground rock, insoluble in strong acids and consisting chiefly of silicates of magnesia. Prof. S. L. Penfield, of Yale University, kindly examined this material and found it to be a mixture of pulverized talc and tremolite, a species of hornblende, which is extensively mined in northern New York, perhaps elsewhere, and is much used as a filler in the paper manufacture. The tremolite appears under the microscope in sharp needle-like splinters, which makes it a dangerous admixture in food."

Alum itself is objectionable enough, and it is therefore not surprising that a manufacturer so unscrupulous as to use it would not hesitate also to mix in pulverized rock. This only goes to show the danger of using any of the cheap grades of baking powder. They are put on the market by small concerns who have no reputation to lose and care nothing for the public health. The cream of tartar powders, on the other hand, though costing a little more,

are made by large and responsible firms who have too much at stake, even were they so inclined, to father anything but a chemically pure article.

The family physician may not find it practicable to overhaul the larders of all his patients, but the knowledge he possesses of the dangerous character of alum powders ought to be communicated, particularly in cases where digestive and similar troubles are indicated. There are two or three cream of tartar baking powders whose names have become "household words" and from them the housewife may safely make her selection.

INDEX OF DISEASES WITH THEIR MODERN TREATMENT.

BY G. BJORKMAN, A.M., M,D.
Professor of Physiology, Milwaukee Medical College.

ANOREXIA is a symptom accompanying most of the acute and many of the chronic diseases. In many instances it depends simply on a local disturbance, catarrh, ulcer or cancer of the stomach. It is, therefore, not always advisable to restore the appetite until the stomach is in a condition to perform its mechanical and chemical duties. Here the sound judgment of the physician often is put on trial. If constitutional disturbances cause a loss of appetite, the system should be strengthened by general and proper tonics; exercise, scientific massage or gymnastics are advised and patient should be placed under the very best hygienic conditions.

For anorexia of tuberculosis, chlorosis and cardiac diseases:

Quininæ sulph..... 0.06 (1 grn.)
Extr. nuc. vom..... 0.02 ($\frac{1}{3}$ grn.)
Pulv. rad. rhei..... 0.5 (8 grn.)
Dr. tal. dos. No. X.
One powder in a wafer, twice a day (morning and afternoon).

Troch. Protonucleini No. XXX.
Two to four tablets every three hours. (The tablets may be dissolved in a little milk.)

—Abstract from *Merck's Archives*, November, 1901.

A DRESSING FOR ABDOMINAL WOUNDS.

PROF. R. T. MORRIS, of New York, whose contributions on abdominal surgery have been of so much value, has for many years made extensive use of aristol in the dressing of abdominal wounds. In his lectures on appendicitis he states that he has replaced iodoform by aristol, which is similar in its action, but is preferable "because it adheres to the tissues much more tenaciously, because it seldom

if ever produces any toxic effects, and because it smells better." He believes that while aristol does not act directly as an antiseptic it quickly forms with lymph a thin, protecting coagulum, which is almost impenetrable to bacteria, the free iodine which is given off destroying the existing ptomaines. He considers aristol of the utmost importance in closing tissue planes against infiltration from a wound. Aside from its use as a dressing to the external wound he has found this drug of great service in preventing secondary peritoneal adhesions. Other very prominent surgeons, as, for instance, Professors Tuttle and De Garmo, have been equally strong advocates of aristol in abdominal surgery, and it is of interest to note that it was recently used in the dressing of the late President McKinley's wound (*American Journal of the Medical Sciences*). The special advantages of aristol for the treatment of wounds are its remarkable cicatrizing property, its freedom from irritation, and its analgesic action.

The Treatment of Nasal Catarrh.—Mannon (*Cincinnati Lancet-Clinic*) finds no danger whatever from the use of the nasal douche provided ordinary care is taken and a proper solution is employed. The charge that post-nasal douching is prone to excite inflammation of the middle ear he does not find sustained. All leading specialists employ this method of treatment in the posterior as well as the anterior nares with equally good results. The doctor has had chronic nasal catarrh of many months' duration yield to douching when heroically employed. Listerine, to which a small quantity of bicarbonate of soda has been added, is his main standby. If hemorrhage is a controlling feature, he uses instead a saturated solution of tannic acid to each ounce of which ten grains of carbolic acid has been added. When the tendency to bleed ceases he returns to the listerine solution. Treated in this way the most pronounced cases yield in three or four weeks, and are not prolonged by complications or sequelæ.

By the will of the late Dr. Henri Guilbault, the Metropolitan Hospital and Dispensary of New York, No. 248 East 82nd Street, receives $3,000. This thriving institution was founded in 1885, and includes on its staff several noted New York physicians. Dr. Thomas H. Manley is the senior surgeon and president of the Medical Board.

The management of *The Rider and Driver*, office 1123 Broadway, New York, has published a most beautiful Horse Show calendar, which they are presenting to every new yearly subscriber to their paper. It is certainly a most beautiful piece of workmanship, and makes a premium which should be secured by all lovers of our noble friend, the horse.

Medical Jurisprudence and Toxicology.

. . . IN CHARGE OF . . .
W. A. YOUNG, M.D.

RESPONSIBILITY FOR THE RECENT DEATHS FROM THE USE OF IMPURE ANTITOXINS AND VACCINE VIRUS.*

BY W. R. INGE DALTON, M.D.,

Professor of Dermatology and Syphilology, New York School of Clinical Medicine; Dermatologist and Syphilologist, Metropolitan Hospital and West Side and German Dispensaries; Member of the American Medical Association, etc., etc.

DEPLORABLE as is the loss of life which has occurred in St. Louis from the use of impure antitoxin, and in Camden and elsewhere from tetanus following vaccination, there is something that is infinitely more to be regretted, and gives infinitely more cause for alarm, and that is the distrust which has thus been engendered in vaccination and antidiphtheritic serum, two of the greatest life-saving agencies which medical men have at their command. There is no exaggeration in the statement of the *Journal of the American Medical Association* (November 23rd), that "the deaths in St. Louis sink into positive insignificance compared with the untold thousands of avoidable diphtheria deaths which will inevitably follow unless members of the medical profession demand a guaranteed purity of antitoxin, and are thus enabled to speak with the confidence of definite knowledge and so inspire the anxious parent with their own confidence." And, in regard to smallpox, the evils to be apprehended are even greater. With what ill-concealed delight will not the unfortunate accidents be made use of by the fanatical opponents of vaccination! What unscrupulous use may we not expect to have made of them by charlatans of every kind! In the light of the past history of events connected with vaccination and cognate matters, one shudders to think of the extent to which the cause to medical progress may be thus set back, and of the terrible scourges that may as a consequence be inflicted on mankind.

The situation being thus grave, it is eminently fitting that a society like this should devote some time to its serious consideration, with a view to the ascertainment as far as possible of the

* Read at a meeting of the Medical Jurisprudence Society, held at the New York Academy of Medicine, December 9th, 1901.

exact causes of the different catastrophes, to the end that steps may be taken to prevent the possibility of their repetition.

Upon whom then must the responsibility be placed for these various fatalities? Evidently, upon one of three classes—(1) the manufacturers of antitoxin and vaccine virus, (2) the physicians, (3) the parents or guardians of the unfortunate victims.

In regard to the deaths from tetanus following the use of antitoxin at St. Louis, with which we have first to deal, the coroner's jury has spoken with no uncertain voice. "The presence of tetanus toxin in the diphtheria antitoxin," it says in its verdict "shows negligence upon the part of the Health Department in the preparation of the said diphtheria antitoxin and in the issuance thereof." With the apportionment of blame among the different functionaries of the Board we have nothing to do here. For general purposes it is sufficient to know that the Board itself has been held to have been negligent, and that the finding is abundantly supported by the evidence given in the investigation. Nor was it one careless act alone, or the mistake of a single individual that led to the fatalities. The whole system on which the Board has been in the habit of producing antitoxin seems to have been grossly reckless, and in all respects bad. Perhaps too much has been said by myself and others about the "very careful janitor" who was entrusted with the responsible duty of filling the vials. We might as well censure the poor old workhouse horse "Jim," now fortunately gone to his rest, for the part that he played in supplying the impure antitoxin. The fault all too clearly was not that of subordinates of any kind. It was deeply engrained in the system by which antitoxin was produced by such manifestly inadequate means and with such obviously incompetent help. Does the bacteriologist say that he did the best he could with the means at his command? I have no manner of doubt that he did. But is there any reason why he, as a man of science, should have consented to do it at all under such conditions? Surely he, if any one connected with the municipality, knew the safeguards that have to be adopted, and that are regularly adopted by reputable manufacturing houses, in the production of antitoxin, and if he was acquainted with these safeguards, it follows as a matter of course that he was not ignorant of the fact that they were being neglected in the laboratory of which he had charge, and that he must have been fully alive to the terrible risks which were being run—the chances that were being taken—by reason of this neglect. The Board itself may justly plead ignorance: but it can do so no longer, and neither can other Boards of Health which are engaged in similar dangerous enterprises. They have had a rude awakening by reason of the deaths of these innocent little ones. It is to be hoped they now realize the enormous responsibility which they undertake when they establish plants for the manufacture of their own serums. If they do not, it is evident that the public does, and is prepared henceforth to hold them to a strict accountability.

Were there any reason for Boards of Health engaging in this or other industrial pursuits in competition with regular trade, the fact might be pleaded in mitigation of its shortcomings—though it could never justify such an exaggerated combination of objectionable methods as have been shown to prevail at St. Louis. But, far from there being any reason for Boards of Health engaging in such industries, all considerations of an economical and sociological as well as a scientific character point to the fact that it would be infinitely better for them to confine themselves to their own duties —the inspection and abatement of nuisance, the spread of information that will be of use to a community particularly in the way of enabling it to protect itself from contagious diseases, the testing of drugs and articles of daily consumption, such as milk, and possibly beer and other beverages. They should assist regular physicians in promoting the public health, and call upon the ordinary purveyors of drugs to furnish them with the best available methods of fighting disease. Surely in this way they would serve a higher purpose than by each of them setting up its own poorly equipped laboratory and seeking to compete with manufacturing houses which have millions invested in their plants, and which are compelled by a healthy regard to their own interests to adopt every conceivable precaution to prevent anything but the most perfect goods being sent out under their label.

The St. Louis Board of Health is unfortunate in this respect, that it is the first to have its careless and inefficient methods found out. But it is far from being the only sinner, and I am by no means sure that it is the worst. A peculiarly bad example was set years ago by the Board of Health of New York City, which was not only the first to make its own antitoxin, but makes a business of selling its serum and vaccine virus in open rivalry with regular manufacturers. It has been pleaded that it is only its surplus that is thus disposed of; but inquiries made a year or two ago by a taxpayers' committee disclosed the startling fact that the surplus amounted in quantity and value to four or five times as much as was required for legitimate purposes. Other facts made known at a public hearing at Albany showed that antitoxin of an inferior quality, and pronounced not good enough for use in this city was sold at a reduced price to another Board of Health whose sphere of usefulness is a thousand miles away; and statements were at the same time made as to the condition of the stable where the antitoxin horses of the city are boarded which would be incredible were it not for the high authority on which they were made, and the fact that they were never contradicted.

We now come to the second class of cases, the deaths from tetanus following vaccination. Here we find ourselves confronted by a different set of facts, for in no case so far as I am aware has the virus used been that made by a Board of Health, and I am not sure that in any case the tetanus germs have been traced to the virus. In one instance, that of a child who died at St. John,

N.B., the coroner's jury expressly declared in its verdict that the tetanus was caused by the use of impure vaccine: but in nearly all the other cases the contention has been that the vaccine virus had not and could not possibly have had anything to do with the tetanus from which the children died. Those who assume this position base their conclusions partly on the failure to find tetanus germs in any of the samples of vaccine examined, but more particularly on the fact that the tetanus has usually not developed until three or four weeks after vaccination, which is considerably longer than the period of incubation generally recognized in tetanus. An editorial in *New York Medical Journal* (November 23rd) states the case thus:

"This very lapse of time ought to teach them (the good people of Camden) that the tetanus was indeed 'following vaccination,' but in nowise connected with it. Most of the ills that men suffer from 'follow' vaccination, *longo intervallo*, for vaccination does not purport to protect people against anything but smallpox."

I am afraid, Mr. President, that this will not commend itself to the members of the Medical Jurisprudence Society as showing either sound logic or close reasoning. "Following vaccination, but in nowise connected with it!" Can it be pretended for one moment that the tetanus would have developed if there had been no vaccination? Assuredly not, for a sore of some kind—or at all events an abrasion of the skin—is necessary to afford a portal or way of entrance to the tetanus germs, and it is admitted that that portal was opened by the act of vaccination. Moreover, as has been pointed out, surgical operations of every kind have gone on as usual in the places supposed to be infected with tetanus, and as I have also seen suggested the average number of persons must be presumed to have met with accidental abrasions. Yet nowhere do we hear of lockjaw following these injuries. Only where the sore has been caused by vaccination has the fatal tetanus ensued, and thus, as has been remarked, an unbroken chain of cause and effect is established between the vaccination and the deaths from tetanus. This is not a case of ills following vaccination *longo intervallo*; they have followed it *brevi intervallo*, and are too clearly the consequence of something connected with the act to allow us to rest satisfied with the conclusions so complacently arrived at by the genial editor of one of our foremost medical publications.

Perhaps it is true that the tetanus germs were not conveyed in the vaccine virus, and I certainly hope it is, for one of the great advantages of glycerinated lymph as compared with the human virus formerly in use has always been regarded as this, that it deprived anti-vaccinators of their last vestige of an excuse for saying that infections of one kind and another could be and were thus communicated. But there are various brands of vaccine virus—some of them cheaper than others, some that are tested with the same care, some that produce more apparent signs of having proved effective while in reality they have done nothing towards

rendering the patient immune against smallpox, but have only caused a septic sore. It is incumbent upon us in a case of this kind to inquire into the quality of the vaccine that was used, the manner and particularly the degree of care with which the operation was performed, the character of the sore which developed, and the way in which it was treated.

In the Camden cases the manufacturer and the medical men have co-operated in exonerating themselves, and have thrown all the blame on the parents of the children. Dirt and neglect, in short, are said to have been the sole causes of the disasters, not impure vaccine or faulty technique. Were this so, it would seem to dispose of the theory advanced by the same people, that there is a plague of tetanus in the air with a selective predilection for sores produced by particular kinds of vaccine virus. Besides it is not the opinion that has been arrived at elsewhere where deaths have occurred from tetanus following vaccination. In Cleveland, where the first cases of the kind occurred, the conclusion arrived at, according to the local *Journal of Medicine*, was that economy had been considered entirely too much in the purchase of vaccine for city use.

"Vaccine," the writer adds, "has been bought at the lowest price, quality being considered only secondarily. Indeed, it is a fact that for the past few months the Health Office has been buying vaccine at a price so low that it is hardly reasonable to expect that the maker could take all the expensive precautions necessary to secure purity of product. The makers of the best vaccine could not without loss, or without reducing the standard of purity, sell their product at the price that the city has been paying. If impure vaccine has been used, therefore, the penny-wise policy of the Health Office is the cause, and the city is entirely responsible for the result. Biologic products cannot be bought and sold under the customs of ordinary commercial competition without grave risk to the ultimate consumer."

I have seen it stated that in a vast majority of cases that have occurred elsewhere the same vaccine virus was used as at Cleveland, and if that can be established I would ask the legal gentlemen present whether it does not furnish a *prima facie* case for a searching inquiry into all the circumstances connected with these numerous fatalities.

Summing up, I would offer the proposition that the lesson we have principally to learn from these catastrophes is the necessity of eliminating commercialism from matters pertaining to the public health. When it is our own ills or those of our own household that we have to deal with, we make it a point to procure the best medicaments and the highest skill that can be obtained consistently with our means. It is false economy—to say nothing of the kind of humanity it is—to deal otherwise with the health of the public. Boards of Health, instead of grasping eagerly at the lowest bids, or trying to make cheap preparations of their own, should first of

all look to the quality of the drugs and prophylactic agents they are called upon to use. Besides this, they should do whatever lies in their power to ensure that none but reliable preparations shall be used within the community of whose health they have charge. They should see particularly to the enforcement of regulations for surrounding with all possible safeguards the manufacture and sale of such articles as antitoxin and vaccine virus. As the *New York Times* (November 18th) says in an excellent editorial:

"The safeguards by which the business of producing virus and serum need to be surrounded are simple enough, but not one of the least of them is safely negligible. It cannot be carried on without immeasurable risk to life and health with worn-out horses or sickly calves, nor in dirty stables or improvised annexes to vermin-infested barns. Healthy animals, perfect plants constructed and managed under expert supervision, and the assurance of pure cultures with entire freedom from pus organisms, are the essential conditions."

In trying to bring about the safeguards indicated, and in discharging the other duties that fall naturally within their province, Boards of Health, it is evident, have a large field of usefulness open before them; it is equally obvious that they cannot discharge any of these duties satisfactorily so long as they engage in the manufacture and sale of antitoxins and vaccine virus, or other medical or prophylactic agents, in competition with regular manufacturers. It is anomalous for a public health official, as for any one else, to seek to be "himself the judge and jury," so long as he may also be "the prisoner at the bar" of public opinion. To be impartial, Boards of Health must get out of business. W. A. Y.

THE MEDICO-LEGAL SOCIETY OF NEW YORK CITY.

AGAIN has Mr. Clark Bell been honored by the Medico-Legal Society of New York by a renomination for the Presidency, which position he has held since 1872, on various occasions thirteen times, and it now seems to be a part of the regular proceedings of this useful and important organization. This, however, is not surprising in view of the eminent attainments and the valuable services rendered by Mr. Bell to the Society, and to the advancement of forensic medicine during the past quarter of a century.

Under his wise management of its affairs the Medico-Legal Society has attained a national and even an international reputation, and its influence is of far-reaching character.

Mr. Bell was, although not a medical man, appointed by the Government of the United States as a delegate to the International Medical Congress of 1900 held at Paris, and was made an honorary Vice-President of its section on legal medicine. He holds similar distinctions in many foreign countries and is an honorary member

of scientific bodies in France, Italy, Belgium, Russia, Germany and Holland, and held a high position in the recent Congress of Criminal Anthropology held at Amsterdam, Holland, last summer.

Mr. Bell, as our readers are aware, is one of the most prominent lawyers of New York, one whose career has been in every way successful and highly creditable. The cases with which he has been identified have been of an important nature and these he has conducted with ability and success. His practice is a large and important one.

The Society is fortunate in being able to command the services of so able and experienced an executive.—*Exch.*

Filters Act as Incubators for Microbes.—Many hotels, office buildings, and other institutions throughout the land, are supplied with mechanical filters which are generally supposed to purify the drinking water used in the respective places, and upon which special stress is laid in all announcements pertaining to them. That most of these filters are actual detriments has been clearly demonstrated by the bacteriologist of the Buffalo Health Department, in a series of examinations covering a period of one month. Samples of water were taken daily from the city reservoir, from ordinary tap, and from taps the water of which had passed through a mechanical filter. This filter was established in the basement of a building for which it was intended to be used, of sufficient capacity to filter all the water required in the building, and connected with the main supply pipe, so that filtration was carried on under continuous pressure. The number of bacteria in the reservoir samples ranged from 180 to 220 per cc., in the ordinary tap water from 160 to 560 per cc., and in the filtered water from 1,180 to 3,600 per cc. This is not surprising; it is astounding! It is a matter to which public attention cannot be too strongly directed. Any filter which will multiply the danger from drinking water seventeen times, while ostensibly minimizing the danger, is worse than the most fatal pestilence, of whose existence the public is aware, and which it can avoid. This filter clarified the water, and that was about all that could be said in its favor, while apparently the number of bacteria increased with the length of time the filter was in use, making it a veritable germ-breeder. Regular tests should be made of all filters, and those found ineffective or detrimental should not only be condemned, but their sale prohibited, on the same principle as that of unsanitary food stuffs. This is a subject in which few people are proficient. Hearing and reading so much about the necessity of water filtration, the average person assumes that any filter answers the purpose, and no one can tell which filter is good or bad except by scientific tests. —*Philadelphia Medical Journal.*

OFFICERS, AUTHORS AND PROMINENT MEMBERS OF THE AMERICAN CONGRESS OF TUBERCULOSIS.

Dr. E. P. Lachapelle, Vice-President, Montreal, Canada.

Dr. A. N. Bell, Honorary President, Brooklyn, N.Y.

Dr. George Brown, Vice-President, Atlanta, Ga.

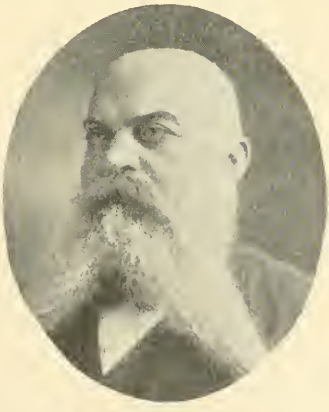
Dr. Henry D. Holton, President, Brattleboro, Vt.

Louis J. Rosenberg, State Delegate, Detroit, Mich.

Dr. E. J. Barrick, Vice-President, Toronto, Ontario.

Dr. E. Chancellor, Vice-President, St. Louis, Mo.

Dr. W. F. Drewey, Superintendent, etc Petersburg, Va.



VICE-PRESIDENTS AND PROMINENT MEMBERS AND AUTHORS OF THE AMERICAN CONGRESS OF TUBERCULOSIS.

DR. HENRY B. BAKER,
Lansing, Mich.

DR. WM. BAYARD,
St. John, N.B.

DR. HENRY McHATTEN,
Macon, Ga.

N. E. ARONSTAM, E.D., Ph.D.,
Detroit, Mich.

DR. CARLTON SIMON,
New York City.

DR. R. HARVEY REED,
Surgeon-Gen'l of Wyoming, Rock Springs.

DR. ROBERT SANGIOVANNI,
New York.

Proceedings of Societies.

CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

At the meeting of the Canada Medical Association at Ottawa in 1900, a committee was formed to consider the question of the formation of the above association and to report at the Winnipeg meeting of 1901.

The report of the Committee was adopted by the Association. It was thought desirable that as the major part of the work of organization was to be done the first year, the officers should be selected from some central place to facilitate the business and to lighten the work by saving laborious correspondence.

The following is the report of the Committee:

1. We believe it to be in the interests of the medical profession of Canada that an association should be formed by this body for the protection of such members of the medical profession as may become members of this Association and who may be unjustly prosecuted for malpractice. The object of this Association is to protect the members from prosecution where such action appears to our Counsel and Solicitor, as well as the Committee in charge, to be unjust, harassing or frivolous. Carried.

2. That this Association may be formed under the name and style of the "Canadian Medical Protective Association." Carried.

3. That the objects of the C.M.P.A. shall be (see clause 1). Carried.

4. The officers shall consist of a president, a vice-president, a secretary, a treasurer, and a solicitor. These officers shall hold office for one year. In case of death or removal from Canada of any of the officers the remaining officers shall select from the members in good standing a successor or successors, who shall hold office until the next meeting of the Canadian Medical Protective Association. Carried.

For President, Dr. R. W. Powell, Ottawa; Vice-President, Dr. Camarind, Sherbrooke; Secretary, Dr. F. W. McKinnon, Ottawa; Treasurer, Dr. Jas. A. Grant, jun., Ottawa. Carried.

The Solicitor shall be selected by the executive. Carried.

5. All expenses arising out of such defence shall be paid out of the funds of this Association and the Treasurer shall be empowered to pay out of the treasury of this body such sums as may be required to carry on the defence to a final or proper termination upon receipt of an order signed by the President and Secretary Carried.

6. A sum of two dollars and fifty cents shall be levied annually on each member of this Protective Association. Carried.

7. Every member of the profession in good standing in Canada, excepting as hereinafter provided, shall be eligible for membership in this Association. Anyone desiring to become a member of this Association can do so by sending to the Treasurer the amount of the annual fee, when he shall be enrolled as a member and be entitled to all the protection this Association affords, subject to clause 8. Carried.

8. No physician can become a member of this Association after having a charge made against him for any offence that may be covered by the rules of this body until after his case has been disposed of. If he still remains a registered medical practitioner he may become a member of this Association, but not when action is or may be pending against him. Carried.

9. It shall be the duty of any member of this Association pending the defence of any action by this body to aid the defence in every legitimate manner. Carried.

10. The remuneration for the Secretary may be fixed by this Association from time to time. Carried.

11. Upon an action being brought for malpractice against any member of this Protective Association, it shall be competent for the defendant to communicate the facts to the Secretary who shall thereupon convey the name to the Committee, whereupon such Committee shall submit the case to the Solicitor who shall decide upon the nature of the defence, if any defence is to be made. Carried.

12. It shall be the duty of the Committee to follow the case through any and all courts until a correct judgment shall be obtained, if in the opinion of Counsel such a course would be judicious. In no case shall the Association compromise. Carried.

13. When a member neglects or refuses to pay his annual dues at the proper time he shall cease to be a member of this body and shall forfeit such protection as this Association may afford. As soon as he has paid all arrears he shall be reinstated subject to the provisions of clause 8. Carried.

14. Dues shall be payable on or before the first day of January in each and every year, thirty days' grace being allowed in all cases, after which, if not paid, the defaulter shall cease to be a member of this Association. Carried.

15. A meeting of this Association shall be held annually at the same time and place as the annual meeting of the Canadian Medical Association. At any meeting of this Association not less than (20) twenty members shall constitute a quorum. Carried.

In presenting this report we beg to state that we have thoroughly investigated the Medical Defence Union now formed and in working order, and find that it fulfils in all respects the requirements of our Committee, and as we are given to understand that there are no debts now or impending, nor yet have any en-

tanglements arisen; we therefore recommend that this Protective Association do take over the work of this Union, members now joining, meeting and electing officers and council in accordance with its rules, etc, etc., as we understand that its present officers would feel themselves honored by being supplanted by such eminent gentlemen as are here present. Carried.

It was moved by Dr. J. R. Jones, Winnipeg, seconded by Dr. Russell Thomas, Lennoxville, "That the report be adopted as a whole." Carried.

In accordance with the above resolutions taken from the minutes of the Canadian Medical Association meeting at Winnipeg, in August, 1901, the officers of the Association invite members of the profession in Canada to become members of the "Canadian Medical Protective Association," and remit the fee of $2.50 to Dr. F. W. McKinnon, Ottawa.

At the meeting of the Canadian Medical Association in Montreal in 1902, the first annual meeting of this C.M.P.A. will be held and the rules and regulations governing the same will then be formed and ratified.

We wish all possible success to the C.M.P.A. and feel that ere long its membership will be most representative.

TRINITY MEDICAL DINNER.

Over two hundred and fifty students and guests were present at the annual banquet of Trinity Medical College at the Temple Building on December 5th, the function being one of the most successful in the history of the college. For the first time since the dinners were inaugurated no liquors were served. A. H. Anderson, President of the Banquet Committee, occupied the chair, and seated at his right and left were: Lieut.-Col. Denison, Mayor Howland, Dean Geikie, Rev. Mr. McMillan, Dr. Egerton Ryerson, Dr. Teskey, Dr. E. Herbert Adams, Dr. O'Reilly, Dr. Dwyer, Dr. Temple, Dr. Wishart, Dr. Bingham, Dr. Powell, Dr. Davison, Dr. Sheard, Dr. Fenton, Professor Shuttleworth, Dr. Pepler, W. F. Maclean, M.P., Dr. H. B. Anderson, Dr. Garratt, Dr. Gordon, Dr. McMaster, Dr. Lusk.

After the toast of "The King" had been honored, Dr. Sheard proposed "Canada and the Empire," to which Lieut.-Col. Denison replied, advocating an Imperial defence fund by the imposition of a customs duty of 5 or 10 per cent. on foreign imports. Referring to Professor Shortt's idea that England's food supply is safe because it is to the interest of foreigners to have a market for their produce, he said the argument is fallacious and unsafe, and quoted a recent speech by Lord Dufferin to that effect.

W. F. Maclean also responded, and claimed that the best Imperial ideas came from colonials.

Dean Geikie received an enthusiastic reception when he rose to reply to the toast, "Trinity Medical College and Graduates." He declared that the idea of amalgamation with Toronto was utterly dead, and commented on the action of the Ontario Government in voting public money in aid of Toronto Medical College after the Premier had laid down the principal that medical schools should be independent and self-sustaining.

Other speakers were: Dr. Bingham, Mayor Howland, Rev. Mr. McMillan, Dr. E. H. Adams, Dr. Davidson, Dr. Temple, Dr. Powell, Dr. O'Reilly, Dr. Dwyer, Dr. Nevitt, Dr. Pepler, W. H. Irwin and representatives of other colleges.

One of the prettiest menu cards was that of last night. It was designed, as usual, by a former student, Mr. C. M. Heydon, and will be treasured as an artistic souvenir. The two cartoons, especially, one representing Dr. Sheard prescribing for Miss Toronto and the other dealing with Trinity's dislike to amalgamation, were deservedly admired.

About Lithia Tablets and Carbonated Waters.—"Chemical analysis, writes a noted chemist, "shows that the Commercial Lithia Carbonate is sparingly soluble in water; therefore, we cannot obtain a perfect solution without the addition of an acid. Hence, I find that each brand of Lithia Tablets sent me for analysis contains an excess of acid, either citric or tartaric. This, I prove by the tablet effervescence, and the *Red* reaction on blue litmus paper when immersed in the Lithia Tablets solution. *None* of the various Lithia Tablets sent me show *Alkaline* reaction." Says a prominent physician: "The careless habit of drinking *charged* waters or *effervescing* solutions is very prevalent, and, no doubt, a large percentage of modern stomach and kidney troubles are directly traceable thereto. Lithia Tablet solutions should not be taken into the stomach as medicine until a physician has tested and ascertained conditions. When drank with a view of neutralixing acid conditions, which is the practice, these tablet preparations, even when chemically pure, actually increase the acidity of the system, and they possess neither antitoxin nor eliminating properties." Medical testimony is abundant, showing the ill-effects of Carbonated waters and so-called "Lithia" tablet drinks, but our object is simply to invite attention to the impotency of these unnatural waters to neutralize or expel from the body the excess Uric Acid accumulations which develop into so many forms of disease.

NURSES HOME, TORONTO GENERAL HOSPITAL.

The Canadian Journal of Medicine and Surgery

J. J. CASSIDY, M.D.,
EDITOR,
69 BLOOR STREET EAST, TORONTO.

Surgery—BRUCE L. RIORDAN, M.D., C.M., McGill University; M.D. University of Toronto; Surgeon Toronto General Hospital; Surgeon Grand Trunk R.R.; Consulting Surgeon Toronto Home for Incurables; Pension Examiner United States Government; and F. N. G. STARR, M.B., Toronto, Associate Professor of Clinical Surgery, Lecturer and Demonstrator in Anatomy, Toronto University; Surgeon to the Out-Door Department Toronto General Hospital and Hospital for Sick Children.

Clinical Surgery—ALEX. PRIMROSE, M.B., C.M. Edinburgh University; Professor of Anatomy and Director of the Anatomical Department, Toronto University; Associate Professor of Clinical Surgery, Toronto University; Secretary Medical Faculty, Toronto University.

Orthopedic Surgery—B. E. MCKENZIE, B.A., M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Surgeon to the Out-Patient Department, Toronto General Hospital; Assistant Professor of Clinical Surgery, Ontario Medical College for Women; Member of the American Orthopedic Association; and H. P. H. GALLOWAY, M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Orthopedic Surgeon, Toronto Western Hospital; Member of the American Orthopedic Association.

Oral Surgery—E. H. ADAMS, M.D., D.D.S., Toronto.

Surgical Pathology—T. H. MANLEY, M.D., New York, Visiting Surgeon to Harlem Hospital, Professor of Surgery, New York School of Clinical Medicine, New York, etc., etc.

Gynecology and Obstetrics—GEO. T. MCKEOUGH, M.D., M.R.C.S. Eng., Chatham, Ont.; and J. H. LOWE, M.D., Newmarket, Ont.

Medical Jurisprudence and Toxicology—W. A. YOUNG, M.D., L.R.C.P. Lond., Toronto.

Pharmacology and Therapeutics—A. J. HARRINGTON, M.D., M.R.C.S.Eng., Toronto.

W. A. YOUNG, M.D., L.R.C.P.LOND.,
BUSINESS MANAGER,
145 COLLEGE STREET, TORONTO.

Medicine—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon, Toronto General Hospital; and W. J. WILSON, M.D., Toronto, Physician Toronto Western Hospital.

Clinical Medicine—ALEXANDER MCPHEDRAN, M.D., Professor of Medicine and Clinical Medicine Toronto University; Physician Toronto General Hospital, St. Michael's Hospital, and Victoria Hospital for Sick Children.

Mental Diseases—EZRA H. STAFFORD, M.D., Toronto, Resident Physician Toronto Asylum for the Insane.

Public Health and Hygiene—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon Toronto General Hospital; and E. H. ADAMS, M.D., Toronto.

Physiology—A. B. EADIE, M.D., Toronto, Professor of Physiology Woman's Medical College, Toronto.

Pediatrics—AUGUSTA STOWE GULLEN, M.D., Toronto, Professor of Diseases of Children Woman's Medical College, Toronto.

Pathology—W. H. PEPLER, M.D., C.M., Trinity University; Pathologist Hospital for Sick Children, Toronto; Demonstrator of Pathology Trinity Medical College; Physician to Outdoor Department Toronto General Hospital; Surgeon Canadian Pacific R.R., Toronto; and J. J. MACKENZIE, B.A., M.B., Professor of Pathology and Bacteriology, Toronto University Medical Faculty.

Ophthalmology and Otology—J. M. MACCALLUM, M.D., Toronto, Assistant Physician Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

Laryngology and Rhinology—J. D THORBURN, M.D., Toronto, Laryngologist and Rhinologist, Toronto General Hospital.

Address all Communications, Correspondence, Books, Matter Regarding Advertising, and make all Cheques, Drafts and Post-office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College St., Toronto, Canada.

Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the fifteenth of the month previous to publication.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month.

VOL. XI. TORONTO, JANUARY, 1902. NO. 1.

Editorials.

NEW YEAR'S GREETING.

ONCE more it is a pleasure and a privilege to wish our confreres and subscribers everywhere a very bright and prosperous New Year. In doing so we pledge ourselves to make our medical publication as interesting and readable as it lies within the power of the united energy and enterprise of our staff to accomplish. As we enter upon our eleventh volume we most heartily thank those who have sent us such kindly words of appreciation and congratulation upon what they term our "success," and whether we deserve

all the courtesy we have received or not, we are deeply grateful to the medical profession and our business friends at home and abroad for their continued good-will and generous support.

It seems difficult to map out any one way of conducting a monthly medical publication and adhere strictly to it without a certain dulness or monotony creeping in, and so we occasionally brighten and vary our pages (by using half-tones, etc.), and surely the readers who scan our issues cannot accuse us of giving them dreary reading nor "stereotyping" our matter from month to month. Such old-fashioned methods now are about as profitable to the reader and publisher as the progress of the trustees of a church who every year added the floating debt to the mortgage and thanked God that was paid.

True, at the beginning of each year we have echoed sincerely the gala season's message of "Peace on earth, and good-will to men," though sometimes during the year, in our anxiety to have peace eventually prevail in the medical realm, we may have "caused our good-will to be questioned" as we have approached and "taken a talk at" matters of supreme momentary interest to the profession, for we still hold to the straightforward and aggressive policy of saying what we think fearlessly. While the milestones behind us are some, the many, we trust, are yet to be counted, and with us is still the voice saying—

"Calm's not life's crown, though calm is well."

As 1902 dawns we covet for one and all the good gifts of progression and prosperity, and if our wishes only materialize we may call ourselves with Pat, "powerful prophesiers." W. A. Y.

THE ADMINISTRATION OF ANESTHETICS.

The occasional death of a patient from chloroform in the dentist's chair or on the operating table serves to convince people, that, in endeavoring to gain anesthesia, one may attain instead a surcease of all earthly sorrows. To the operating surgeon the safety of his anesthetized patient should be a matter of the first importance, but, in actual practice, the giving of an anesthetic is looked upon as trivial. In hospitals the post of anesthetist is not usually coveted by the house surgeon, particularly if he has a junior assistant; so that, while the surgical acumen and best diagnostic skill of the

visiting staff are lavished on the wound, tumor, dislocation, or what not, the administration of an anesthetic may be confided to an unlicensed or an inexperienced practitioner. Lack of skill and experience on the part of the anesthetist is unfair to the patient, and may lead to a loss of life and a considerable amount of discredit to the medical men attached to an hospital and, in fact, to the whole profession of medicine.

Danger in anesthesia may be due to quite another cause. One has only to read the history of anesthesia and anesthetics to learn, that deaths from anesthesia have been noted in the practice of the leading hospitals of the world, and that no anesthetic or mixture of anesthetics is quite free from danger.

After describing the curious instances in which death occurs in chloroform anesthesia, as a result of over-excitement of the nervous apparatus, Lyman on Artificial Anesthesia and Anesthetics, says: "After all, the great fact remains that, in a very large proportion of cases, death from chloroform, as well as other anesthetics, is the result of a general paralysis of the nervous centres. The functions of respiration and of circulation are so closely connected, that the failure of one necessarily causes the failure of the other. So closely related are the medullary centres, which preside over these functions, and so wide is the diffusion of the anesthetic process, that a degree of tissue poisoning sufficient to poison one centre cannot fail to overwhelm the other. Paralysis of the respiratory centre signifies absolute repose of the muscles of respiration. Paralysis of the circulatory centre merely liberates the heart from all central control. If its own intrinsic motor apparatus be not simultaneously overwhelmed, it may continue for some time to beat, though in a feeble and inefficient way."

The researches of Paul Bert (Comptes Rendus, Soc. de Biologie, Seance du 26 Fevrier, 1881) indicate, that whenever a certain relative quantity of any anesthetic has been introduced into the blood, asphyxia will inevitably occur. Lesser degrees of impregnation produce the phenomena of anesthesia alone: but, as soon as a certain degree of saturation is reached, asphyxia appears. . . . For each anesthetic substance the absolute quantity differs, but, in every instance, the relation between the amount necessary for the production of simple anesthesia and the quantity which will cause asphyxia and death is nearly the same—1 : 2.

As to the relative dangers of the prominent anesthetics, it is unnecessary to repeat what every physician knows, viz., that ether

is very much safer than chloroform. The combination of nitrous oxide and ether is well spoken of. By commencing with the inhalation of nitrous oxide, it is thought to avoid the initial excitement, which sometimes follows the beginning of ether inhalation. The time necessary for the production of anesthesia is thus shortened, especially when the patient is made to inhale his own breath, and the quantity of ether that is needful is thus greatly diminished.

As anesthesia is necessary in surgery, the question of its use may be looked at in this way: anesthesia itself involves a certain amount of danger to life; how shall we minimize the danger?

In the first place, we look to the research laboratories for experimental work, showing the dangers of each anesthetic and the best methods of overcoming them. In this connection, it is a pleasing duty to refer to a recent study of chloroform made in the research department of the University of Toronto, by Dr. Rudolf, a notice of which may be found in the editorial notes of this number.

Secondly, in hospital practice the administration of anesthetics should be confided to one or two licensed physicians.

Thirdly, prior to the administration of an anesthetic, these gentlemen should examine the patients to be anesthetized, attention being given to the condition of the kidneys, lungs and heart, and a choice made of the anesthetic, or combination of anesthetics, which promises to cause the least interference with the functions of these organs.

Systematic introduction of this method in all hospitals, or places where anesthesia is frequently used, would lead up to a desirable change in medical instruction. Few, if any, medical colleges in Canada include a course of practical training in the use of anesthetics in the curriculum. If the administration of anesthetics were confided to one or two physicians of a staff, instruction in this particular could be methodically imparted to a graduating class. There is certainly no good reason why this kind of instruction should not be given, as well as training in auscultation and percussion, the introduction of a catheter, or the application of the obstetric forceps.

Personal instruction by a skilled anesthetist would be more useful to graduating men than the reading of a text-book. Skilful observation of the patient, involving study of his physical condition, estimation of his power of resistance to a lethal drug, together with the immediate preparation of the patient, the selection and proper use of an anesthetic can be thoroughly acquired by studying

the precepts and following the practice of a teacher, who has mastered the subject of anesthesia and knows the weak and strong points of each anesthetic. J. J. C.

COMPARATIVE CONSUMPTION OF ALCOHOLIC BEVERAGES IN DIFFERENT COUNTRIES.

THE Canadian excise returns for the fiscal year ended June 30th, 1901, give an idea of the extent to which alcoholic beverages are used in this country.

The returns show that beer is the most popular of these beverages, the consumption per capita amounting to 4.737 gallons, as against .765 gallon of spirits and .1 gallon of wine. During the year ended June 30th, 1900, the figures were as follows: beer, 4.364 gallons; spirits, .701 gallon; wine, .085 gallon. Taking the last thirty-three years, the average per capita consumption has been: beer, 3.078 gallons; spirits, .983 gallon; wine, .124 gallon.

The per capita consumption of alcoholic beverages in the United States for 1899 was: beer, 13.3 gallons; spirits, 1.10 gallons; wine, .33 gallon. These amounts, both for Canada and America, compare favorably with the relatively large consumption of European countries. Thus, in 1900 the per capita consumption in England was: beer, 31.7 gallons; spirits, 1.12 gallons; wine, .39 gallon. In Germany: beer, 27.5 gallons; spirits, 1.94 gallons; wine, 1.45 gallons. In France: beer, 6.2 gallons; spirits, 2.02 gallons; wine, 25.4 gallons.

Judging by the amounts reported for the United States and countries in Europe, the consumption of alcohol in Canada is small. Possibly owing to a large influx of immigrants from European countries into the United States, the consumption in the latter country is increased by the drinking customs prevalent in Europe. In spite of this possible influence, the consumption of beer in the United States is less than it is in England or Germany. In these three countries, however, beer is the popular beverage. In France the per capita consumption of beer, 6.2 gallons, is small; but that of wine, 25.4 gallons, is remarkable.

One deduction, which can be made from these statistics, is, that in England and Germany beer must be used habitually as a table beverage, just as in France wine is used. In America wine and beer are not habitually used at table. They are used principally

on festive occasions, and a similar dietetic custom prevails in Canada.

The reasons for this change of custom in America and Canada do not appear on the surface. Church influences, temperance societies, instruction through the school and the press help to mitigate the evils of alcoholic addiction in Europe as well as in North America. That ruin follows in the wake of alcoholism is as well known on the one continent as on the other. Neither can America nor Canada claim a better system of public schools than Germany.

Owing to the fact, however, that meat is cheap and abundant in North America, the inhabitants maintain a high degree of vigor, through a meat diet, with but small occasion to resort to the use of intoxicants. There are, doubtless, other reasons to account for this neglect of alcohol among the races living on this continent. Whatever these reasons may be—satisfaction with social, industrial and political conditions, dislike for the feeling of intoxication, self-respect, or a stimulating climate—neither Americans nor Canadians drink as much alcohol as Englishmen, Germans or Frenchmen ; and, in the matter of relative abstinence among these nations, Canadians take the lead. J. J. C.

TETANUS AND VACCINATION.

That tetanus may follow a slight wound, even the scratch of a pin or the extraction of a tooth, is well known. "The fact that the bacillus of tetanus is anaërobic explains why tetanus in man is a comparatively rare disease, and also why it is most apt to follow punctured and contused wounds. It may be assumed that an injury, however slight, serves as the portal of entrance for the poison" (Anders). If this bacillus could thrive in oxygen, its wide diffusion in the earth (garden soil in particular), in barnyards, in stables and in street dust would lead to frequent outbreaks of tetanus in wounds of all kinds.

It is not, however, a negligible quantity. Outbreaks of tetanus occur sometimes in vaccinated children. In June, 1901, a fatal case of tetanus after vaccination occurred at Brantford, Ontario. In November, 1901, another fatal case, after vaccination, was reported from St. John, New Brunswick. During the same month several cases of tetanus among vaccinated persons occurred at Camden, New Jersey. Bacteriological examinations of the different makes

of vaccine used at Camden proved that none of them contained tetanus germs. All the cases noted in vaccinated persons occurred in from three to four weeks after vaccination, and as the incubation period of acute tetanus lasts from one to two weeks, while in the chronic form the first symptoms usually appear after the second week (Anders), the tetanus germ could not have been present in the vaccine used, nor was it introduced by the vaccinator. The tetanus germ was widely diffused in Camden at that time, for a case of tetanus from a gun-shot wound developed in a boy, who had not been vaccinated.

Before performing vaccination careful physicians thoroughly cleanse their own hands. The patient's arm having been cleansed with soap and water, followed by the application of alcohol, pure vaccine is applied to the wound, made with a surgically clean scarificator, needle or scalpel. It is safe to say that, if such a wound is afterwards protected from the atmosphere, tetanus germs will not gain access to it.

When public vaccination is done by order of a local board of health, similar precautions should be observed by vaccinators. Protective shields should also be provided by the local health authority for vaccinated persons, until the vaccination wound is healed. When the State undertakes to enforce a surgical procedure in the public interest, it is bound, in equity, if not in law, to see that the necessary work is executed with the least possible injury to the citizen. J. J. C.

IN THE HOSPITALS IS IT PAY, PAY, PAY?

THE almost perfect equipment and fine executive ability shown by the superintendents of most of our city hospitals and their corps are a credit to progressive surgery and medical skill. The amount of time given by surgeons to performing operations upon poor patients is an added honor to the name of surgery.

But should it not be very clearly understood, alike by the hospital physicians and patients, in all cases whether any remuneration is expected for professional services rendered. Our attention has been called to this matter lately by the decision of a Division Court Judge in a case in point where a misunderstanding occurred in reference to fees, between the operating physician and his "county" patient.

The public seem to cling to the idea that everything about or

connected with a hospital ought to be free. So it should be, and is, to the charity patient for whom the city or county pay at the rate of $2.80 a week. But from those (public) patients who can pay weekly to the hospital themselves, and also those who constitute and fill the private wards, the attendant physician or surgeon certainly expects a fee.

A suggestion we might be permitted to make to the hospital authorities is, that upon the card at each patient's bedside it be stated on filling it out upon his entrance to the Institution, whether he be a "charity" or "private" patient, and the attending physician's name. If "charity," of course no remuneration is expected by the physician; if "private," a schedule of the fees or simply the fee agreed upon should be filled in, causing a distinct and business-like understanding on both sides, and eventually physician and patient alike would appear in a better light to each other and to the community at large. W. A. Y.

TETANUS AND DIPHTHERIA ANTITOXIN AT ST. LOUIS.

An urgent demand for diphtheria antitoxin in St. Louis, Missouri, last October induced the city bacteriologist to place untested serum, of his own manufacture, in the hands of some of the physicians of that city. It appears that a horse, bled September 30th, 1901, for antitoxin purposes, had to be killed two days afterwards, October 2nd, for tetanus. Serum, prepared from this horse's blood, was issued to the St. Louis physicians, who thus became instrumental in introducing tetanin into their patients, as well as antitoxin diphtheriæ. Thirteen deaths from tetanus followed the use of this poisonous serum at St. Louis. It is regrettable, that the carelessness here adverted to should shake the almost unanimous testimony of medical experience, in favor of the great utility of antitoxin in the treatment of diphtheria. Many people will naturally object to subjecting their children to the dangers of tetanus, in an endeavor to save them from death through diphtheria. More particularly will this objection arise, when immunizing doses of antitoxin are required for children who are not sick, but who have been exposed to diphtheria. As good sometimes results from evil, it may be that, even in St. Louis, where the facts will be fully known and discussed among the people, no enduring antagonism

will be excited against the use of antitoxin in diphtheria. The catastrophes in that city ought to produce a general and peremptory demand from physicians and the public that antitoxin shall be properly prepared, and shall not be issued, until the necessary tests demonstrating its harmlessness have been made. The chief bacteriologist of a manufacturing house or corporation should be made responsible for the purity of the serum he prepares. If responsibility rests on no person, antitoxin will be regarded with distrust by the public, and physicians treating cases of diphtheria will be debarred from using this admirable specific. J. J. C.

EDITORIAL NOTES.

The Use of Atropine and Hydrocyanic Acid in Chloroform Poisoning.—In Physiological Series, No. 3: Observations on Blood Pressure, by R. D. Rudolf (University of Toronto Studies), the author's experience leads him to the following conclusions: "First, the previous use of atropine lessens the tendency to death from chloroform poisoning in dogs. Theoretically, also, one might assume that, from its powerful stimulating effect on the circulation, it would, especially if combined with morphia, tend to lessen the chance of syncope occurring during, but not necessarily due to, chloroform administration. Second, that when, during the administration of chloroform, danger has occurred, either in the form of syncope or of respiratory failure, atropine in moderate doses (say $\frac{1}{100}$ grain) would tend to stimulate both the circulation and the respiration, and hence would be a valuable adjunct to other means of saving life in such emergencies. A high encomium is passed on the life-saving results due to artificial respiration in chloroform asphyxia. Of all the methods tried artificial respiration was found to be the most certain method of restoring animals in which the respiration had been stopped as a result of chloroform poisoning. . . . The method followed was rhythmical compression of the chest. In using this method the air passages must be kept free by keeping the tongue firmly pulled out, and, if necessary, introducing the tip of the index finger into the rima glottidis, by which means the vocal cords are kept apart." References are also made to tracheotomy, rhythmic traction of the tongue (Laborde's method), nitrite of amyl and hydrocyanic acid. Of hydrocyanic acid Dr. Rudolf writes: "In true cases of

chloroform poisoning, when the respiration has stopped or seems likely to do so, it would be well to try the use of a medicinal dose of this powerful drug. It could be given hypodermically or by the mouth, as an adjunct to artificial respiration and other restoratives. . . . the full B. P. dose of 6 minims could be employed with absolute safety, or that of the U. S. P., viz., 15 minims of the dilute acid might be used if necessary." The danger of chloroform may depend on the method of administering that anesthetic. If given in small and continued doses it is not dangerous. The cloth over the patient's face should never be wet with the drug. During last October, at the Paris meeting of the French Surgical Association, Dr. Péraire claimed, that in two thousand general anesthesias by chloroform he had but one death, and the latter could not fairly be attributed to chloroform, for it occurred half an hour after the termination of the operation.

The Study of Medical History.—We notice in the *British Medical Journal* (November 9th, 1901) that the Royal College of Physicians of London has accepted the gift of £2,000 ($10,000), given by Mrs. FitzPatrick to found a lectureship on the history of medicine. This benefaction is intended to perpetuate the memory of Dr. FitzPatrick, her husband, a distinguished member of the College, who was born at Virginia, in Cavan, Ireland, in the year 1832. The gift seems to have come in good time, as British medical colleges are not equipped with chairs and lectureships for the study of the history of medicine. It appears, that lecturers on the history of medicine have been appointed at several centres in the United States, and particularly good work of this kind is done by the Johns Hopkins Hospital Historical Club, the papers being subsequently published in the *Johns Hopkins Hospital Bulletin*. An Epitome of the History of Medicine, by Dr. Roswell Park, Professor of Surgery in the medical department of the University of Buffalo, has been received with favor in America, a second edition having been called for within a year after the appearance of the first edition. In Canada a course of lectures on the history of medicine ought to be instructive to physicians, many of whom have never devoted any attention to this subject.

The Slaughter of the Innocents.—The *British Medical Journal* (November 9th, 1901) protests, and not too soon, against the preventable loss of life noted in the Boer concentration camps in South Africa, where the women and children are massed together instead

of being left on the farms. We quote: "If we assume that all the children in the camps are under five years of age, that is, belong to the ages of the highest normal mortality—which is a highly improbable assumption—it is impossible to regard with complacency the consideration that, if the present condition prevailed for three consecutive years, all the Boer children now in the camps would be annihilated, while it would take twenty years of exposure of children in England to the English conditions of life to produce a similar result." Elsewhere in the same article, the following appears: "It is due to inefficient sanitary control, that a large share of the dysentery and enteric fever in the military camps has occurred, and the statistics give ground for suspecting that similar inefficiency has characterized the control of the concentration camps. . . . The conscience of the public is very properly touched on this subject; the statistics warrant the uneasiness of the public mind, and it may be hoped that prompt measures will be taken in the direction indicated."

The Skirmish Line in Incipient Tuberculosis.— Writing on the above subject in the *Journal of Tuberculosis*, Dr. Tyndale, of Lincoln, Nebraska, emphasizes the necessity of studying the respiratory process: "Seek for the first manifestations of tuberculous invasion in changes of rhythm in breathing, and do not wait for changes of pitch. . . . What does normal respiration call for? An audible inspiration of vesicular quality, a pause, which is only a 'retard,' and a short and inaudible expiration. Well, the pathological changes are the reverse of this. They call for an interrupted rhythm, a broken accent—that which, in the music of the present day is known as 'rag-time.' They may have an interrupted inspiration (as yet without change of pitch or quality), that rhythm which ancient mariners still call 'cog-wheel' respiration; or there may be nothing but a distinct and prolonged pause. Again, we have of old the prolonged and audible expiration. When all three are combined, diagnosis is comparatively easy. It goes without saying, that the percussion-finding gives no clue to the existing condition, save in confirming, by its normality, that no organic changes leading to alterations of pitch or of quality have as yet taken place."

Disinfection of Instruments with Spiritus Saponis Kalinus.—J. H. Pollak (*Deut. med. Woch.*, No. 36) gives the preference to the spiritus saponis kalinus for disinfecting surgical instruments.

He concludes, that (1) boiling, and especially in soda solution in a closed vessel, is the best means of sterilizing, but that sharp instruments are blunted by the process. (2) Soap spirit is capable of sterilizing sharp-edged instruments in fifteen minutes, without blunting or otherwise affecting them, when infected with ordinary pyogenic organisms. (3) Mechanical rubbing of instruments with soap spirit for thirty seconds is an excellent procedure. The jointed parts of instruments, viz., dental forceps, Reverdin's needle, etc., are not easily cleaned like smooth surfaces. Professor Championière, of Paris, informed the editor, in 1891, that he secured the thorough disinfection of the Reverdin needle he used by having the jointed parts steeped in chloroform after use, thus dissolving away fatty tissue, which adhered to the instrument and caused infection of wounds.

ITEMS OF INTEREST.

An Innovation in the Drug Business.—A number of prominent retail druggists of Toronto, among whom are W. H. Field, James McKenney, W. H. Gilpin and G. A. McCann, have obtained a charter from the Legislature and have formed a limited liability company, having for its object greater efficiency in supplying medicines. The Gilpin-Field Co., Limited, start with a Central Supply Depot at 359 Spadina Avenue, and six stores throughout the city, and they will add other stores in different localities from time to time. At present the stores include 594 and 675 Spadina Avenue, 326 and 472 College Street, 509 Bloor Street West, and 208 Dundas Street. The Company's aim is to conduct first-class, up-to-date pharmacies on systematic lines. Glancing over their by-laws we notice such regulations as the following: "No substitution or tampering with any recipe or prescription, or knowingly falsifying any medicine or article offered for sale, or supplying any medicine that is known to have deteriorated, allowed in any store operated by this Company. All stores operated by this Company to be under the continuous care of qualified druggists." The plan throughout is commendable, and being in the hands of men who have for many years made their own business succeed, we have no doubt the new venture will prosper. We wish them every success.

Substitution must be Throttled.—There is undoubtedly substitution carried on by some druggists. We say "some" advisedly,

as we believe that the large majority of druggists are honorable men, who would not stoop, for the sake of a few cents more profit, to such low tactics. Physicians should be careful to see to it that, when ordering a particular preparation, their patient gets the genuine article and no other. We heard just recently that there has been an attempt to substitute Hunyadi János water by the use of a name which looks and sounds somewhat like the original. In prescribing this natural aperient water, which for a long time has had the endorsement of the profession, it would be well to specify on the prescription the full name, *Hunyadi János*. The same principle would apply to such preparations as Listerine, Fairchild's pepsin products, Tongaline, and many others, which unscrupulous pharmacists have tried to tamper with. We trust that ere long there will be no such contemptible actions heard of, and that a physician can have the fullest feeling of confidence that his patient will get exactly what is prescribed for him.

Our Colored Supplement.—We are greatly indebted to the firm of H. K. Mulford & Co., of Philadelphia, Pa., for the beautifully executed colored plates which appear in this issue of our journal. We feel certain that everyone will admit that, for delicacy in coloring, beauty of execution, and absolute correctness in even the minutest detail, the illustrations could not be improved upon. The gradual disappearance from day to day of the diphtheritic exudate under the influence of diphtheria antitoxin, is certainly only true to fact, and but illustrates what occurs in the every-day experience of the physician who resorts to the use of what is now looked upon as the *sine qua non* in the treatment of this otherwise terrible disease. The colored reproductions illustrating the "Cycle of Vaccination" and the Mulford Laboratories are also most beautiful. We are glad to have the opportunity of presenting these plates to our readers, as they will appear in no other journal in the Dominion.

A New Smallpox Hospital for Toronto.—A new smallpox hospital has been put up by the City Council of Toronto, on the eastern bank of the river Don, near the city; but is, nevertheless, very well isolated, being situated in the centre of 150 acres of natural park land, and far removed from habitations. The building, which has been constructed at a cost of $5,000, is a picturesque structure of brick and stone, in the Swiss style of architecture. The ordinary capacity of the hospital is 25 patients; but, if the

necessity should arise, a dozen more could be accommodated in the attic. On the ground floor there are rooms for the doctor and the nurses, a dining-room, kitchen, etc. There are also two rooms for suspects on this floor. One side of the first floor is given over to a general ward, and the other half to two good-sized wards for convalescents, one for men and the other for women.

Dr. W. A. Young spent a week in New York City last month.

Dr. R. B. Nevitt, of Jarvis Street, has purchased a residence on Bloor Street West and moved into his new quarters recently.

Dr. G. E. R. McCartney, of the class of 1901, Toronto University, has received an appointment as house surgeon at the New York City Hospital.

Drs. T. Cullen and Howard Kelly, of Baltimore, Md., were in Toronto for a day or two in December. They came here to attend the funeral of the late Dr. Lesslie Sweetnam.

We acknowledge with thanks the loan of the two half-tones in this issue of prominent members of The Medico-Legal Society of the State of New York from Dr. Clark Bell, the able editor of *The Medico-Legal Journal.*

We are greatly indebted to Mr. Edward H. Fox, photo-engraver, of Danville, Ky., for the use of the half-tones appearing on pages 17 and 18 in this issue. Dr. Dunlap, of that city, was instrumental in securing us this material, and we wish to take this opportunity of thanking him for his kindness herein.

A Queer Recommendation.—They have been holding a "Journalists Conference," by which is meant a meeting of newspaper writers, at London, during the course of which the following story was told by one of the feminine delegates, illustrating the ambition which many persons have to see their names in print. She was engaging a servant, an Irish girl, but found that her terms were exceedingly high. "How is it," she asked, "that you want such high wages?" "Shure, ma'am," was the answer, given with a delightful brogue, "my name's been in the papers." "In the papers. What do you mean?" "Shure, I gave evident at an inquist."

Obituary

THE LATE DR. LESSLIE M. SWEETNAM.

It was a great shock to the medical profession in Toronto, as well as elsewhere, when about mid-day on December 11th news reached Toronto that Dr. L. M. Sweetnam had died at Johns Hopkins Hospital in Baltimore Md Every report as to his condition

had been favorable until a few hours before his death, so that the sad intelligence was at first hardly believed. Dr. Sweetnam was a Christian gentleman, a clever surgeon, and a favorite with all his friends, both professional and otherwise. His death is a sad loss to our profession and his place will be hard to fill.

Dr. Sweetnam was the eldest son of the late Matthew Sweetnam, and was born in Kingston, August 1st, 1859. He was educated at Upper Canada College, and took his medical degree at Toronto University in 1881. He was a member of the College of Physicians and Surgeons of Ontario, M.B. of Toronto University, M.D., C.M. of Victoria University, and also a member of various Canadian medical associations and fraternal societies, a member of the Senate of Victoria University, professor of surgery of Toronto University, and surgeon to the General and St. Michael's hospitals. On October 7th, 1885, he married Margaret Victoria Gooderham, daughter of Mr. C. H. Gooderham. He was also a prominent member of the Metropolitan Methodist Church.

THE DEATH OF SIR WM. MacCORMAC, BART.

One of the most notable figures in the world of surgery has been removed by the death of Sir Wm. MacCormac, Bart., President of the Royal College of Surgeons of England, who died at Bath on December 4th, aged 65. Sir William will be remembered by those interested in later imperial events for his connection with the South African war, at the outbreak of which he was sent out in a special capacity to oversee the treatment of the wounded who then had the services of the highest imperial authority on wounds received in war.

Sir William MacCormac was born at Belfast on the 17th of January, 1836. His father, Dr. Henry MacCormac, was a well-known Belfast physician, who wrote much on the necessity of fresh air for patients suffering from phthisis. Wm. MacCormac had a distinguished career at the Queen's University in Ireland, where he graduated M.A., in 1858, and in 1879 received the degree of M.Ch. *honoris causa*. He took the fellowship of the Irish College in 1864, and was admitted *ad eundem* to the F.R.C.S., England, in 1871. On the outbreak of the Franco-Prussian war, Mr. MacCormac at once started for Paris to render assistance to the wounded. From Paris he was passed on to Metz, but after a short stay he

was compelled by the civil authorities to leave that town, in consequence of an order that no foreigners were to be allowed therein. Afterwards he was chief of the Anglo-American Ambulance, and did much good work in rendering surgical aid to the wounded at Sedan and elsewhere. In the Turko-Servian war, he also served with great success, as an ambulance surgeon. Mr. MacCormac published an account of his experiences in the former campaigns in a book, entitled "Notes and Recollections of an Ambulance Surgeon." This was translated into nearly every European language, including Japanese. In 1871 Mr. MacCormac moved from Belfast to London, having been appointed Senior Assistant Surgeon and Lecturer on Practical Surgery at St. Thomas' Hospital; and in 1873 on the retirement of Mr. Le Gros Clark, he was made full surgeon. This office he retained until 1893, when he was appointed Consulting Surgeon. He was also Emeritus Lecturer on Clinical Surgery at St. Thomas'. At the meeting of the International Congress of Medicine in London in 1881, Mr. MacCormac held the responsible position of senior honorary secretary, and for the admirable way in which he carried out the duties of that office, he received the honor of knighthood. Sir William was elected on the council of the college in 1883, and had been examiner since 1887. He filled the office of Vice-President in 1890, and again in 1893. In the last named year he was appointed Bradshaw Lecturer, and chose as his subject, "Sir Astley Cooper and his Surgical Work." In addition to the work above named Sir William has contributed largely to the literature of the profession. Upon the outbreak of the South African war Sir William went to the field of operations and was of incalculable service in giving advice as to the treatment of the wounded in Natal and other places. Like his father, Sir William was an excellent linguist, and his works show a large acquaintance with foreign professional literature. His honors were as follows: Officer of the Legion of Honor, and Commander of the Orders of the Daumborg, the Crown of Italy, the Lacous, the Crown of Prussia, North Star of Sweden, St. Iago of Portugal, Ritter Kreuz of Bavaria, Merit of Spain, and Medjidii; Knighthood, 1881. His principal works are: "Work Under the Red Cross." "Antiseptic Surgery," "Surgical Operations."

The Physician's Library.

BOOK REVIEWS.

A Manual of Medicine. Edited by W. H. Allchin, M.D. (Lond.), F.R.C.P., F.R.S. (Ed.), Senior Physician and Lecturer on Clinical Medicine, Westminster Hospital; Late Examiner in Medicine, University of London, for the Royal College of Physicians of London, and to the Medical Department of the British and Indian Army Medical Services. Vol. III.—Diseases of the Nervous System. New York: The Macmillan Company, 66 Fifth Avenue. London: Macmillan & Co., Limited. Toronto: Tyrrel's Book Store, 8 King Street West. Price, $2.00. 1901.

This is a neat little volume of 417 pages, including index. There are nine contributors to this volume, including the author. Charles Scott Sherrington, M.D., F R.S., Holt Professor of Physiology University College, Liverpool, contributes the opening chapter on "The General Anatomy and Physiology of the Nervous System Table of Spinal Segments."

Bertram Abrams, M.B., B.Sc., M.R.C.P., Medical Registrar Westminster Hospital: "The Application of Electricity in Diseases of the Nervous System."

James S. Collier, M.D., M.R.C.P., Pathologist to the National Hospital for the Paralysed and Epileptic: "Aphasia and other Speech Defects; Functional Diseases of the Nervous System in part."

Walter Stacy Colman, M.D., F.R.C.P., Assistant Physician to St. Thomas's Hospital and to the Hospital for Sick Children, Great Ormond Street: "Functional Diseases of the Nervous System in part."

Joseph Anderne Ormerod, M.D., F.R.C.P., Assistant Physician to St. Bartholomew's Hospital, and Physician to the National Hospital for the Paralysed and Epileptic: "Diseases of the Spinal Cord; Muscular Dystrophies."

Purvis Stewart, M.A., M.D., M.R.C.P., Assistant Physician to the Westminster Hospital: "Lesions of the Cauda Equina: Acute Ascending Paralysis; Diseases of the Peripheral Nervous System."

James Taylor, M.A., M.D., F.R.C.P., Physician to the National Hospital for the Paralysed and Epileptic; to the North-Eastern Hospital for Children, and to the Royal London Ophthalmic Hospital: "Medical Ophthalmology."

William Aldren Turner, M.D., F.R.C.P., Assistant Physician to

the National Hospital for the Paralysed and Epileptic; and to King's College Hospital: "The Neurone in Relation to Disease of the Nervous System; Organic Diseases of the Brain and its Membranes."

W. H. Allchin, M.D. (Lond.), F.R.C.P., F.R.S. (Ed.), the Editor: "Headache; Trophoneuroses."

There are twenty-seven illustrations and six colored plates. We are very much pleased with this volume. The various subjects are dealt with in a short, concise and very practical manner.

Anatomy and physiology necessarily occupy a prominent place in the work, and with the illustrations make this difficult part of medical literature more than usually interesting. The specialist in nervous diseases would prefer the more extensive works on this subject, but for the general practitioner, and especially as part of a system of clinical medicine, we think this volume will prove a decided success. W. J. W.

Nothnagel's Encyclopedia of Practical Medicine: Typhoid and Typhus Fevers. By Dr. H. Curschmann, of Leipzig. Edited, with additions, by William Osler, M.D., Professor of the Principles and Practice of Medicine, Johns Hopkins University. Handsome octavo of 646 pages, illustrated, including a number of valuable temperature charts and two full-page colored plates. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, $5.00 net; sheep or half morocco, $6.00 net. Canadian agents, J. A. Carveth & Co., Toronto.

It is a well-known fact that the German edition of this Encyclopedia has for long been looked upon as an authority upon many knotty subjects in medicine. In Germany this work is considered to be almost without an equal in medical literature. When we compare that edition with the one now under criticism, we cannot but think that the American one has many distinct advantages, the chapters in the latter being fuller, and containing views naturally more recent than its predecessor, and, therefore, altogether a more useful volume, one distinctly abreast of the times. The chapter on the Treatment of Typhoid we read with keen interest. Referring to the administration of calomel, the author says that Liebermeister believes that treatment with calomel induces a marked mitigation in the intensity of the disease, while Von Ziemssen, going somewhat further, attributes to the remedy an influence in diminishing the intensity of the whole infectious condition, and especially of the local intestinal symptoms. The author goes on to say that, in view of the experience of these two trustworthy writers, he is unwilling to advise against the employment of the method in suitable cases, though he adds that he has been unable to convince himself of its abortive effects, and that it is, therefore, justifiable for the present to assume a doubtful attitude towards this method of treatment. He expresses the same opinion anent the antiseptic method followed by Bouchard. Readers of this

book will find great interest in studying the chapter on Pathology, especially that part dealing with the intestinal lesions caused by the bacillus, and also the chapter on Bacteriological Methods, including the latest work in blood cultures and the presence of bacilli in the urine. The publishers are to be heartily congratulated upon securing the services of so able an editor as Dr. Alfred Stengel.

W. A. Y.

Pathological Technique. A Practical Manual for Workers in Pathological Histology and Bacteriology, including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By Frank Burr Mallory, A.M., M.D., Assistant Professor of Pathology, Harvard University Medical School; First Assistant Visiting Pathologist to the Boston City Hospital; Pathologist to the Children's Hospital and to the Carney Hospital; and James Homer Wright, A.M., M.D., Director of Clinico-Pathological Laboratory of the Massachusetts General Hospital; Instructor in Pathology, Harvard University Medical School. Second edition, revised and enlarged, with 137 illustrations. Philadelphia and London: W. B. Saunders & Company. Canadian agents: J. A. Carveth & Co., Toronto. 1901.

I had the pleasure of reviewing the former edition of this book and I can confidently say that after frequent references in my laboratory work at Trinity Medical College my then favorable criticism was well founded, as the work is still being constantly thumbed by students and post-graduates alike. What was contained in my previous review applies equally to this second edition, and I beg to add that the authors have not let slip a single opportunity to improve their former edition by adding all the newest methods to the present one, thus making it decidedly up-to-date. The chapters on the parasite of actinomycosis and the bacillus of bubonic plague show many changes and additions. The methods adopted by Wright for the cultivation of anaërobic bacteria are new and practical. Finally, the new staining methods for elastic tissue by Wright and connective tissue by Mallory are useful innovations. The number of illustrations have considerably increased. Many of them are fine original photographs, and the work will, I feel sure, maintain the enviable reputation it already holds of being a great aid to the laboratory worker. The publishers, W. B. Saunders & Co., have done excellent work, and the treatise can be obtained from their Canadian agents, J. A. Carveth & Co., Toronto. W. H. P.

The Man from Glengarry: a Tale of the Ottawa. By Ralph Connor, author of "The Sky Pilot," and "Black Rock." Toronto: William Briggs. 1901.

Let the critics dispute as to whether our country offers themes suitable for poetry, as to whether Bliss Carmen, Roberts, Lampman and Campbell are true poets, but Ralph Connor and Gilbert Parker—than whom no two writers can be more unlike in theme—

have shown that Canada offers all the materials desired by the novelist.

Whatever the stage setting, Ralph Connor's theme is always the struggle between our carnal passions and our spiritual longings —yet his heroes are never "good little Willies." Connor is a clergyman, 'tis true, but thankful am I that there is yet in him a little of the flesh and the devil, else had I never read of some battles which quickened my pulse and made me breathe deep.

In Connor's sinful youth—if I may judge from the rapturous way in which he describes the lumbermen's fight—he must have been in some "sweet bits of rioting." 'Tis himself, too, that knows a few things about side-stepping and the use of his legs. I fear me the Reverend Ralph Connor was at one time a son of Belial.

As the many miles between Toronto and Winnipeg lie between me and the Reverend Connor I am emboldened to say that I wish the rest of the book was as good as the fights—fights carnal, and no less fights spiritual, which later demand more pluck and more stick-to-it-iveness.

It is a fine mixture of what will live and of the most namby-pamby trash—the best of it inspired by the divine fire, and the worst of it seemingly by the printer's devil's mad shout for copy. And by the same token, that same devil has just shouted to me over the telephone, so why should I throw bricks at Connor? Dear Ralph, take time and do yourself justice for you are not—like me —a monthly. J. M. M.

An American Text-Book of Pathology. Edited by LUDVIG HEKTOEN, M.D., Professor of Pathology, Rush Medical College, Chicago; and DAVID RIESMAN, M.D., Professor of Clinical Medicine, Philadelphia Polyclinic. Handsome imperial octavo of 1,245 pages, 443 illustrations, 66 of them in colors. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, $7.50: sheep or half morocco, $8.50 net. Canadian agents, J. A. Carveth & Co., Toronto.

This handsome volume is divided into two parts, the first dealing entirely with General Pathology, and the second covering Special Pathology. We were pleased to find that the first twenty pages of the work came from the pen of our esteemed friend and fellow-countryman, Dr. Lewellys F. Barker, who now occupies the position of Professor of Anatomy at Rush Medical College. Dr. Barker contributes here some very bright matter upon Health and Disease, Heredity and Disease, Environment and Disease, Healing and Cure, Immunity, etc. The other departments under the section on General Pathology are: General Morbid Processes, Tumors, Pathogenic Micro-Parasites, Animal Parasites, Intoxicants, the General Pathology of Fever, and Teratology. Under Special Pathology, the different authors take up (1) the blood and the blood-making organs, (2) the circulatory system, (3) nervous system, (4) osseous system, (5) the voluntary muscles, tendons, etc.,

6) the digestive system, (7) the respiratory system, (8) the ductless glands, (9) the urinary organs, (10) the female genital tract, (11) the breast, (12) the skin, (13) the eye, and (14) the ear.

We find amongst the contributors such names as Drs. V. C. Vaughan, L. J. Mitchell, Frank Hugh Montgomery, J. Collins Warren, David Riesman, Jos. McFarland, A. A. Stevens and Jos. Collins, so that it can be easily understood that the literary matter found within the cover-boards is of a highly scientific character. That any man, to be a successful practitioner, must know, and know well, his pathology, is indeed fact. The "American Text-Book of Pathology" will be found to be one of the most reliable works on the subject in print, each chapter having been written by a man well able to do so. The illustrations are very fine, and in themselves make the book almost an atlas.

A System of Physiologic Therapeutics. A Practical Exposition of the Methods, other than Drug-Giving, Useful in the Treatment of the Sick. Edited by SOLOMON SOLIS COHEN, A.M., M.D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic; Lecturer on Clinical Medicine at Jefferson Medical College, etc. Vols. III. and IV., *Climatology, Health Resorts, Mineral Springs.* By F. PARKES WEBER, M.A., M.D., F.R.C.P. (Lond.), Physician to the German Hospital, Dalston; Assistant Physician, North London Hospital for Consumption; Author of "The Mineral Waters and Health Resorts of Europe," with the Collaboration for America of GUY HINSDALE, A.M., M.D., Secretary of the American Climatological Association; President of the Pennsylvania Society for the Prevention of Tuberculosis; formerly Lecturer on Medical Climatology in the University of Pennsylvania. In two books: Book I., Principles of Climato-therapy, Ocean Voyages, Mediterranean, European and British Health Resorts. Book II., Health Resorts of Africa, Asia, Australasia and America; Special Therapeutics. Illustrated, with maps. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia, Pa. Price, eleven volumes, $22.00 net. Canadian agents: Chandler & Massey, Limited, Toronto and Montreal.

It can truthfully be said that there is too little knowledge prevalent in both Canada and the United States as to the health resorts of the Continent. In this book medical men will find a very complete description of the various health resorts of the United States, with, throughout the work, some very nicely executed maps, which greatly add to the interest evolved by a perusal of the text. The volume will be found of the greatest use for reference as to the climatic conditions of any part of the country to which, it may be, medical men are sending patients. We don't know of any work in print which gives, so much in detail, this information as to the suitability of different parts of our country as health resorts. Its purchase will be money well invested.

A Text-Book of Surgery. By HERMANN TILLMANNS, Professor in the University of Leipsic. Translated from the seventh German edition by BENJ. T. TILTON, M.D., and JOHN ROGERS, M.D. Edited by LEWIS A. STIMSON, M.D. Vol. I., The Principles of Surgery and Surgical Pathology. 516 illustrations. D. Appleton & Co., Publishers.

Since the first English edition of this volume in 1894, four new German editions have appeared, and owing to the recent advances made in surgical pathology, it was deemed wise to make a second English translation of the seventh German edition. The volume is divided into three sections, the first dealing with the general principles governing surgical operations; the second, the methods of applying surgical dressings; the third, surgical pathology and therapy. Thus the principles are well covered, so that having become the master of these, the student is competent to apply the principles already learned when he comes to digest the two subsequent volumes, dealing, as they do, with a description of the surgical diseases and injuries of the different regions. The chapter devoted to inflammation is lucid, and merging, as it does, into a description of the various micro-organisms, the anatomical phenomena in the healing of wounds, suppuration, etc., it gives a connected idea to the student of the relation of one process to another. The work has always been a favorite with the writer, for in the various chapters it really goes into detail, and describes in a learned and scientific manner the various descriptions of the principles of surgery and of surgical pathology. The chapter on anesthetics is a good one, and the practitioner will do well to study carefully the newer ideas on the manner of producing anesthesia. The publishers are to be congratulated on bringing out such a creditable book. F. N. G. S.

Diseases of the Digestive Organs in Infancy and Childhood, with Chapters on the Diet and General Management of Children and Massage in Pediatrics. By LOUIS STARR, M.D., late Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania, Consulting Pediatrist to the University Hospital, Philadelphia, etc. Third edition, rewritten and enlarged. Illustrated. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1901. Canadian agents, Chandler & Massey, Limited, Toronto and Montreal.

It is ten years since the last edition of this work appeared. The whole subject of Pediatrics has been so greatly advanced that the author has thought it advisable to practically rewrite the work. New chapters have been added on Simple Atrophy, Infantile Scurvy, Rickets, Lithemia, Infective Follicular Tonsillitis, Nasopharyngeal Adenoid Hypertrophy, Proctitis and Appendicitis. Extensive changes have also been made in that part devoted to Infant Feeding. That the author does not consider the feeding of bottle-

fed babies an easy matter may be inferred from the expression "great difficulty may be expected." While he is an advocate of "modified milk," he is not so enthusiastic in his praises of laboratory milk. In using the latter he has experienced "very unsatisfactory results"—an experience which accords with that of a few prominent New York men. Instead of giving tables of percentages and amounts for various ages from birth up to a year, we believe that greater good would have resulted to the profession generally if a short, easily understood and quickly worked-out formula had been given. The Westcott formulæ are too numerous and complicated to carry in one's head, and to have "to consult a vest-pocket" every time one advises a milk mixture is neither dignified nor commendable. H. T. M.

Manual of Chemistry. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A text-book specially adapted for students of Medicine, Pharmacy and Dentistry. By W. Simon, Ph.D., M.D., Professor of Chemistry in the College of Physicians and Surgeons, Baltimore, in the Maryland College of Pharmacy, and in the Baltimore College of Dental Surgery. Seventh edition, thoroughly revised, with sixty-six illustrations, one colored spectra plate and eight colored plates, representing sixty-four chemical reactions. Philadelphia and New York: Lea Brothers & Co. 1901.

This book is well bound and well illustrated, the colored plates representing the various chemical reactions, are specially useful for laboratory work. As far as possible in a text-book of some six-hundred pages, this new seventh edition presents the more important and latest results in scientific progress in chemistry. Chemical physics and physiological chemistry receive more attention than in previous editions. Besides dealing with those physical conditions of matter having a close relation to chemical phenomena and the principles leading to an understanding of many of the instruments used in chemical operations, such as the spectroscope, polariscope, etc, a colored plate, giving the spectra of a number of substances has been added; and electrolysis and the ionic theory are briefly considered from a modern standpoint. A portion of the book relating to the principal facts of physiological chemistry has been specially prepared, and much new matter added, for the benefit of the medical student in particular. E. H. A.

The Accessory Sinuses of the Nose, their Surgical Anatomy and the Diagnosis and Treatment of their Inflammatory Affections. By A. Logan Turner, M.D. (Edin.), F.R.C.S. (Edin.), Surgeon for Diseases of the Ear and Throat, Deaconess Hospital, Edinburgh. With forty plates and eighty-one figures. Edinburgh: William Green & Sons. 1901.

Of the causation of the diseases of the nose but little that was positive was known until attention began to be paid to the acces-

sory sinuses. With the advance in knowledge of the anatomy of these cavities and of their pathological conditions, many of the vexed questions of rhinology have been solved, and many of the diseases which puzzled the practitioner, who vainly sought by manifold washings of the nose to put an end to them, have lost their terrors.

These advances have been chronicled chiefly in the files of the medical journals, whence they are gradually finding their way into the text-books. In English there have not, I believe, appeared any monographs on the subject, unless one call such the translation of Greenwald's Nasal Suppuration, or Tilley's Purulent Nasal Discharges. These deal chiefly with the treatment of the disease condition. Dr. Turner has taken a broader ground, realizing that diagnosis and successful treatment must depend on an exact knowledge of the anatomy of these cavities, and of the many variations in their shape, size and position. Fully one-half of the book is given up to anatomical detail, a preponderance not unexpected from the son of the veteran anatomist, Sir William Turner. This work will, the reviewer believes, more than repay perusal, and once read will be ever kept at hand for reference. J. M. M.

A Text-Book of Surgery. By Dr. Hermann Tillmans, Professor in the University of Leipsic. Translated from the seventh German edition by Benjamin T. Tilton, M.D., Instructor in Surgery, Cornell University; and John Rogers, M.D., Instructor in Surgery, Cornell University. Edited by Lewis A. Stinson, M.D., Professor of Surgery in Cornell University. Vol. I., The Principles of Surgery and Surgical Pathology, with 516 illustrations. New York: D. Appleton & Co. 1901.

The advances made in surgery during the past few years have been so great that, in order to make a work on The Principles and Practice of Surgery modern and up-to-date, it is absolutely necessary that it be revised every year or two, otherwise it would ere long become useless for reference purposes. Take alone the strides made in bacteriology and surgical pathology during the past decade or less; what changes have occurred, and how different are the views held to-day to what were looked upon as being correct but a short time ago. Dr. Tillmann's Text-Book of Surgery will include three volumes in all, the first devoted to surgical pathology, and bacteriology, tumors, surgical technique, bandaging, and diseases and injuries of special tissues and their treatment. Volumes II. and III., yet to come, will take up the application of the principles as learned in the preceding volume, and "a systematic description of the surgical diseases and injuries of the different regions."

We think it a most wise procedure for authors, especially of

books devoted to surgery, to divide them into two or more volumes, as the principles of surgery should be considered entirely separately from surgical diseases and injuries of special parts. The first forms the groundwork of it all, and a student, to be a successful surgeon, must of necessity master first the principles before undertaking surgical disease. Dr. Tilton is to be congratulated upon the method pursued in his text-book, it being the correct one and the one most appreciated by those who will be his readers. We are glad that Vol. I. is so well illustrated. The colored plates are good, and add a great deal to the inherent value of the book. We bespeak for the second English edition a very hearty reception indeed.

A Guide to the Clinical Examination of the Blood for Diagnostic Purposes. By Richard C. Cabot, M.D. With colored plates and engravings. Fourth revised edition. New York: William Wood and Company. 1901.

With each succeeding edition of this excellent treatise on the blood from the pen of Cabot we notice a steady advancement. Of the twelve thousand observations on which it is now based, some three thousand are results of Cabot's own work, the remainder due to the zeal and skill of the physicians of the Massachusetts General Hospital. We find 2,800 observations alone in one thousand cases of typhoid fever, a perfect wealth of statistical data. The most noticeable additions and improvements are found in such diseases as pernicious anemia, the primary anemias, leukemia, typhoid fever, and the animal parasites, in fact, wherever the more recent researches have been made.

The space on serum diagnosis has been abbreviated, as has the table of contents, so that notwithstanding the large amount of new matter, the book is not greatly increased in bulk. The majority of the figures and plates are very accurate. The publishers' department requires no comment from us, as it is known to be always most creditable. The author humbly styles his work a *Guide*, but we should consider it a complete literary composition on the subject of blood examination. W. H. P.

The Standard Medical Manual: A Hand-Book of Practical Medicine. By Alfred S. Burdick, M.D., Junior Professor of Practice of Medicine, Illinois Medical College; Member of the American Medical Association, the Illinois State Medical Society, etc. Pages 921, illustrated. Price, cloth, $4.00. Chicago: G. P. Engelhard & Co.

This book, the editor modestly remarks in his preface, in spite of its name does not assume or hope to become the "Standard" one on the practice of medicine, but the name is rather due to the author's editorial connection with the *Medical Standard*. From

constantly reviewing the enormous mass of collateral medical literature which has come before him as editor, the author has concentrated in a volume of a little over 900 pages an up-to-date medical manual which can be recommended as a standard publication of great value to both students and medical practitioners. It is an exceedingly practical work, special attention being given to methods of treatment and the most space given to those diseases most common in ordinary medical practice. E. H. A.

Gonorrheal Arthritis: Its Pathology, Symptoms and Treatment By L. Vernon Jones, M.D. London: H. K. Lewis.

This little book of some fifty-odd pages is a lucid, and yet concise, account of a malady about which a great deal has been written. The author believes firmly that the trouble is due to the entrance of the specific germ, and backs up his argument by citing instances of its having affected various parts to which the blood or lymph stream must undoubtedly have carried the virus. He says that "in mild cases complete repair, with free movement, takes place, but in other cases, unfortunately, the patient is generally left with a stiff joint." The cases he divides into three groups: (1) In which the loss of movement is due to the results of plastic inflammatory exudation *outside* the joint; (2) in which fibrous bands have formed *inside* the joint; (3) those in which ankylosis of bones has occurred. The author sounds a note of warning as to the relief of these stiff joints, in that plenty of time should elapse after the acute symptoms have subsided before any attempt is made to break down adhesions, lest the acute trouble be again set up. F. N. G. S.

Syphilis: its Diagnosis and Treatment. By William S. Gottheil, M.D., Professor of Dermatology and Syphilology, New York School of Clinical Medicine; Dermatologist to the Lebanon and Beth-Israel Hospitals, the West-Side German Dispensary, etc. Profusely illustrated. Pages 216. Price $1.00 net. Chicago: G. P. Engelhard & Company, 1901.

To any one wishing a clear and concise account of syphilis we can recommend this little book.

After giving a short historical introduction, syphilis is taken up in all its phases—primary, secondary and tertiary—and the lesions found in the different organs in each stage. The illustrations are good, and in every way the work is thoroughly up-to-date. W. J. W.

The Right of Way. By Gilbert Parker. Toronto: The Copp, Clark Company, Limited. 1901.

In telling this absorbing tale of Charlie Steele and Another Gilbert Parker begins in a voice of harshness, a tone of mimicry

soon creeps in, then comes what the French so quaintly term tears in the voice, and the story-teller ends in the quiet monotone of sadness. After the book closes over the reader ponders it long, as the characters cling like living things and stay unbidden in the memory. Charlie Steele, the lawyer, conducting a case and his marvellous power over the jury is one of the most fascinating chapters in the fiction of to-day. The beautiful Rosalie, the petty interests and simple lives of the village folk of Chaudiere, the magnificent character of the curé, the solemn Passion Play in the Valley are well worthy of the author's pen. Is there a Canadian who does not rejoice in a glimpse of French Canada, and, as the years go by, eagerly cut the pages of Gilbert Parker's "latest"?

W. A. Y.

Studies of the Internal Anatomy of the Face. By M. H. Cryer, M.D., D.D.S., Professor of Oral Surgery, Department of Dentistry of the University of Pennsylvania. Philadelphia: The S. S. White Dental Mfg. Co. 1901. Price, cloth, $1.50 net.

From a perusal of Dr. Cryer's book, and also from an inspection of his illustrations, we gather that he is an enthusiastic anatomist, who recommends frequent dissection as the true key to knowledge of the anatomy of the skull and its component bones. He does not believe in typical bones, his experience proving that the more commonly observed form, *e.g.*, the temporal bone, is a variant. This work should be interesting to all students and teachers of anatomy. It is intended to be useful to dentists as a work of reference. The illustrations, 151 in number, being photographs, are decidedly valuable. Several of them exhibiting views of the antrum of Highmore and the nasal chambers should make this work useful to the general surgeon and the rhinologist as well as the dentist.

J. J. C.

Tarry Thou Till I Come: or, Salathiel, the Wandering Jew. By George Croly. With 20 full-page drawings by T. de Thulstrup. 534 pages. Toronto: William Briggs.

This is a Canadian reprint of a remarkable story. The author, a British clergyman, poet, and novelist, was born in Dublin in 1780, and died in London in 1860. He was a graduate of Trinity College, Dublin, an eloquent preacher, and a man of great literary activity. This book has been well spoken of as "a masterpiece of its class." Gen. Lewis Wallace, who writes the introduction, and who has treated the same theme with considerable skill, gives Croly's work a place amongst "the six greatest English novels." For years it has been forgotten and unread, displaced by countless stories of inferior worth. Funk & Wagnalls, in New York, and William Briggs, in Toronto, have done a real service to the public in reprinting Croly's novel in this attractive form, and we can only hope that the venture may meet with the success it merits.

S. P. R.

Essentials of Obstetrics. By Charles Jewett, A.M., M.D., Sc.D., Professor of Obstetrics and Gynecology in the Long Island College Hospital, and Obstetrician to the Hospital, etc., etc. Assisted by Harold F. Jewett, M.D. Illustrated by 80 wood cuts and 5 colored plates. New York and Philadelphia: Lea Brothers & Co. 1901.

The object of this work is to place the essential facts and principles of obstetrics within easy grasp of the student. It is intended as an introduction to the more elaborate treatise, and as a guide in following the didactic and the practical teaching of the college course.

In this little book the author states the important facts of practical obstetrics in simple, plain language. It is mainly intended for students, but the practitioner whose time for reading is limited will find it a handy and reliable book to consult whenever he requires to merely refresh his memory on the salient points relating to obstetrics.

The Medical Record Visiting List, or Physician's Diary for 1902. New revised edition. New York: William Wood & Co., Medical Publishers.

This list will be found to be particularly well compiled. Some changes have been made since the last edition was published rendering it of greater value to the busy doctor. The list of remedies with the dose of each has been carefully gone over, so that it is not only complete, but entirely up-to-date. The visiting list also contains such information as the estimation of the probable duration of pregnancy, approximate equivalents of temperature, weight, etc., dosage, solutions for subcutaneous injection, treatment of poisoning and other emergencies, artificial respiration, signs of death, hints on the writing of wills, etc. The visiting list itself comprises thirty or more patients a week, with sufficient room for making short notes on the various cases met with. The *Medical Record* list is an exceedingly good one.

The Diagnosis of Nervous and Mental Diseases. By Howell T. Pershing, M.Sc., M.D., Professor of Nervous and Mental Diseases in the University of Denver: Neurologist to St. Luke's Hospital; Consultant in Nervous and Mental Diseases to the Arapahoe County Hospital; Member of the American Neurological Association. Illustrated, 12mo. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia. 1901. Price, in cloth, $1.25 net. Canadian Agents, Chandler & Massey Limited, Toronto.

This book is designed as an aid to diagnosis for those physicians who are not specialists in neurology. In the first part the methods of examination are treated of, and in the second part the salient

symptoms that characterize each of the more important diseases. The aim of the work is to be an adjunct only to treatises on the nervous system, and as such will be found helpful. A. M'P.

Dental Surgery, including Special Anatomy and Pathology. A Manual for Students and Practitioners. By HENRY SEWILL, M.R.C.S., L.D.S. (Eng.); Past President of the Odontological Society of Great Britain. Fourth edition, edited by W. J. ENGLAND, L.D.S. (Eng.), and J. SIFTON SEWILL, L.R.C.P., M.R.C.S., L.D.S. (Eng.). London: Bailliere, Tyndal & Cox, 8 Henrietta Street, Strand, 1901.

Physicians and surgeons are seldom properly educated in the principles of dental pathology and surgery, and this little work should be widely read, not only by the general practitioner as a ready reference book, but by students and graduates devoting themselves entirely to the practice of dental surgery. To the student of dentistry it is specially adapted as a text-book.

E. H. A.

The Cavalier. By GEORGE W. CABLE, Illustrations by Howard Chandler Christy. Toronto: The Copp, Clark Co., Limited.

A tale of the troublous times of '63 in the South, and a beautiful love story entwined. The author was at one time in the Confederate army, and, consequently, his experiences wonderfully help out the details of this interesting and stirring narrative. The character of Ned Ferry (of Ferry's Scouts) is exquisite—a soldier, and every inch a man, a credit to the heart and brain of the man who made and gave him to adorn the pages of this great novel of the South. And for the man, the woman so nobly planned, and the other minor characters grouped around so effectively. Read "The Cavalier," and find a place for it on your book-shelf. It is attractively bound in scarlet and gold, and illustrated by H. C. Christy.

LITERARY NOTE.

WITH the widespread military enthusiasm at present in the land, the medical profession will, no doubt, take a lively interest in the *Journal of the Association of Military Surgeons* of the United States, the initial number of which came floating in on a friendly breeze the other day. The present number has 224 pages of reading matter, and contains a complete report of the proceedings of the recent meeting at St. Paul. For the present the *Journal* will appear quarterly, and all aspirants for army medical service should study carefully its contents.

The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF MEDICINE AND SURGERY

VOL. XI. TORONTO, FEBRUARY, 1902. NO. 2.

Original Contributions.

TREATMENT OF LARYNGEAL TUBERCULOSIS.*

BY J. PRICE-BROWN, M.D., TORONTO.

As laryngeal tuberculosis, in a vast majority of instances, is secondary to pulmonary tuberculosis, the systemic treatment is practically the same in each. Hence this branch of the subject having already been thoroughly discussed, I shall confine my remarks to topical treatment, together with a few words upon general, dietetic, and climatic considerations specially bearing upon the throat.

First of all, the voice should be spared as much as possible. Sudden changes of temperature should also be avoided, as well as dusty or irritating atmosphere. The use of tobacco should under any circumstances be limited. Alcohol, when taken at all, should be freely diluted, and rendered bland, to avoid the irritation which it otherwise might produce in the hyper-sensitive mucous membrane.

In reference to diet, it is well known that in this disease deglutition is often very painful, and in advanced cases, sometimes almost impossible. Hence, when irritation exists, all food should be demulcent, or of a soft character, and of a temperature suited to the palate of each individual case.

When ulceration exists, and the tissues are partially necrotic or destroyed, fluids are often difficult to swallow, the tendency for them to enter the imperfectly protected larynx being constantly present. To obviate this tendency, semi-solids or thick demulcent

* Read at a discussion upon Tuberculosis before the Toronto Medical Society, November, 1901.

liquids should be given. The latter are best taken in gulps, like raw unbeaten eggs. Freudenthal has materially lessened the odynphagia and dysphagia in these cases by the free daily administration of large doses of olive oil; the benefit being the result of the continuous lubrication of the diseased mucosa—the swallowing being made easier.

Lake has obtained excellent results also by adopting a modification of the German dish, "Bifteck a la Tartare." Two ounces of raw beef free from fat and gristle are put through a mincing machine, and then intimately mixed with the yolk of an egg. In the worst cases of dysphagia this preparation can often be taken.

Wolfenden has adopted a special method of overcoming this laryngeal difficulty with marked success. He instructs his patient to lie on a couch with the face downwards over the end, the hips being elevated by resting on the knees. The patient then sucks the food from a tumbler through a rubber tube. By this means swallowing can be accomplished, the force of gravitation keeping the food out of the larynx.

In many cases a change of climate for patients suffering from tuberculosis is neither desirable nor possible; but when decided upon, the condition of the larynx and upper air passages should have an important bearing in the selection of the health resort. I laid a good deal of stress upon this point in a paper which I had the honor of reading before this Society eight or nine years ago; and later experience has only confirmed the view then expressed.

As a general rule, it may be laid down that when the laryngeal tuberculosis is purely secondary to pulmonary disease—other things being equal—an elevated region of several thousand feet above the sea offers the best conditions for the arrest of the tuberculosis, owing to the rarity, dryness and purity of the air, and the stimulus which these give to fuller and deeper respiration.

On the other hand, when the tuberculosis has been preceded by laryngeal catarrh, and the disease has first proclaimed itself by hoarseness or soreness in the larynx, an atrophic condition of the upper air passages is often indicated. In such cases, change to an elevated, dry, rarified air can only do injury; while a sojourn in a favorable climate down by the sea, or a prolonged ocean voyage, in properly selected cases may be of the highest benefit.

There are six different conditions which the tuberculous process may assume in the larynx; namely, anemia, hyperemia, infiltration, ulceration, necrosis, and the presence of new formations or growths. It is necessary to mention these, as the treatment varies somewhat according to the form in which the disease presents itself. Several of these conditions may be present in the one case and at the same time.

In *anemia,* the peculiar feature occurs, that while the mucosa of the arytenoids, ventricular bands, and epiglottis may be pallid,

the vocal cords are usually congested. In this condition, and when infiltration is commencing, the best results, in my own experience, have been obtained by spray treatment.

If the nose and pharynx are in an unhealthy condition, these should first be cleansed. Then an alkaline spray downwards, through a curved instrument, will cause the expulsion of the mucus from the trachea and larynx. The second spray, to be used immediately afterwards, should consist of an antiseptic volatile stimulant, dissolved in a bland aseptic medium. For the former, menthol, thymol, creosote, guaiacol are among the most valuable; and for the latter any of the pure hydro-carbon oils, such as albolene, glycolene, petrolene, etc. Of these preparations I have found none so uniformly satisfactory for constant use as menthol in albolene of from one to five per cent. in strength. The immediate subjective effect is a sensation of heat in the larynx, followed by one of coolness and comfort. The objective or observant effect is that the pallid parts are cleansed and vivified, having become more or less pink in color, while the reddened vocal cords have become whiter and less congested, owing to the freer circulation throughout the larynx induced by the treatment. It is reasonable to believe that if this effect can be produced once or several times a day in a weakened and diseased throat, the result should be beneficial.

Other methods of treatment recommended by authors are steam inhalations, medicated by oil of pine, eucalyptus, compound tincture of benzoin, creosote, menthol, etc., etc. And to give ease during the process of inhalation, a few drops of chloroform are sometimes added.

In *hyperemia* we have a condition which occurs much more frequently in tuberculosis of the larynx than is generally supposed.

The idea that the laryngeal mucosa in this disease is invariably pale is a mistake, being only approximately true. As Lake says: "There is a great difference between the larynx of a case of chronic phthisis and one of laryngitis tuberculosa in a phthisical patient. In the latter, the efforts of coughing and the irritation of the pathological process will in the majority of instances have set up considerable redness." To this might be added the fact that in acute miliary tuberculosis of the larynx, whether primary or secondary, there is usually considerable congestion.

The treatment in these cases is similar to that required in the anemic condition, with the exception that the sprays or insufflations, used after the first cleansing treatment, should not be of quite so stimulating a character.

In *infiltration* or *tumefaction,* the methods of treatment advocated by different laryngologists vary greatly. Many believe that until ulceration has occurred, operative treatment is never required, save for the relief of acute or chronic stenosis; while

with others, operations of one kind or another are constantly being done.

Shurly has long advocated that linear incisions into the infiltrated tissue, in selected cases, are highly beneficial. They relieve the tension and do what nature herself would do at a later date; at the same time enabling the operator to directly medicate the diseased parts. In this he is supported by Bronner and other writers.

Lake strongly advocates the removal of interarytenoid thickening with cutting forceps, as he puts it, "in almost every case." To use his own words: "In no class of case is the effect of thorough operation more satisfactory than in uncomplicated interarytenoid thickenings or vegetations." He also uses the electro-cautery wire to amputate the whole of the infiltrated epiglottis.

Gougenheim extirpates the arytenoid cartilages, for infiltration of the commissure, with punch forceps, under the belief that the primary cause is perichondritis or necrosis—a severe method of treatment which few laryngologists will be inclined to follow.

For these infiltrations Chappelle, by special instrument, makes submucous injections of creosote, menthol, and oil of wintergreen in castor oil, from which he claims to have had excellent results. Donelan likewise has had recoveries through the agencies of interstitial injections. He inserts a one-minim dose of pure guaiacol into the most prominent part of the swelling, and, like Chappelle, repeats the injections at intervals of about a week.

In *ulceration,* there appears for many years back to have been a general consensus of opinion in favor of the local application of lactic acid, notwithstanding the severe pain which its application produces. The advice is given to first apply a solution of cocaine to the larynx, and then to rub into the ulcer by means of a laryngeal cotton carrier, lactic acid, commencing with a dilution of say 10 per cent.; and gradually increasing the strength from time to time until 80 or 100 per cent. can be borne by the patient. When applied in this way to the ulcerated surface, the pain frequently lasts for many hours (Freudenthal says often from ten to twenty), and often is so terrible that the patients dread the treatment, and will frequently resort to all sorts of excuses to avoid its repetition.

In my own experience, the use of lactic acid in these cases has not been so adverse. This may possibly be owing to a different method of application. I have never used a weaker solution than 25 per cent., and usually the first application has been 50 per cent. instead, increasing from that up to acid of full strength. But, then, I have always considered it inadvisable to use friction. The method has been first to spray the larynx with a one per cent. solution of cocaine. Then to apply directly on a cotton carrier a three to five per cent. solution, soaking the ulcerated surface

pretty freely. Next, a cotton pledget, fairly saturated in the lactic acid solution, is pressed gently upon the ulceration—but without any friction whatever—the patient being instructed to breathe gently and regularly while the application lasts. By this means the lactated cotton can be kept in contact with the diseased surface for many seconds without producing either laryngeal spasm or pain.

The difficulty that I have unfortunately experienced, when attempting friction, is that the sensitive organ, although cocainized, rebelled. Spasm was produced, and by the contraction of the intralaryngeal muscles, the fluid was squeezed out of the cotton sponge, and forced downwards between the vocal cords and into the trachea. Not only so, but the friction of the acid upon the ulcerated surface seemed to aggravate and prolong the suffering, without being counterbalanced by any adequate good.

When applied in the way suggested, the saturation point being limited, a stronger solution can be used, thus compensating for any supposed advantage derived from the friction of a weaker drug.

Of course, as in the treatment of the other conditions already described, the larynx and trachea should be cleansed before applying the cocaine by the free use of an antiseptic alkaline spray.

Lennox Browne recommends the application of a 20 per cent. solution of menthol in olive oil.

Freudenthal has found a menthol-orthoform emulsion of his own device of great benefit in these cases, and free from the pain-producing effect of the lactic acid. In this preparation the orthoform has a fixed ratio of 12 1-2 per cent. while the menthol varies from 1 to 15 per cent., according to the condition and requirements of the patient. He applies the emulsion by injection, using a prior application of powder of saccharated supra-renal gland for its anesthetic effects, thus doing away with the necessity of using cocaine.

In my own experience, what might be called "the progressive use of menthol" has been very beneficial in checking the ulcerative process and reducing infiltration in laryngeal tuberculosis. The anesthetic effect of weak solutions of menthol upon the mucous membranes of the pharynx and larynx is well known. This occurs, although in a minor degree than when using cocaine, without producing the depressing effect incident to the use of the latter drug.

Hence, after cleansing the larynx with an alkaline spray, I throw into it freely with the down curve of an atomizer a 1 per cent. solution of menthol in albolene. This is followed in two or three minutes by a 5 per cent. solution, and if deemed advisable, after an equal interval, by a 10 per cent., or even stronger. The remarkable thing is that the patient will frequently affirm that the

last spray of menthol in albolene, although ten times as strong as the first, does not hurt nearly as much.

Intralaryngeal insufflations of powders, such as iodoform, aristol, europhen, dermatol, pyoctanin, etc., etc., have frequently been used, but they have not met with very wide favor, as from their drying, desiccating character they produce little but discomfort for the patient. They may check the discharge of pathological secretions and hinder elimination.

It is to Krause and Heryng that we are indebted for the use of the curette in the treatment of tubercular ulceration of the larynx. Under cocaine anesthesia, the ulcers are operated upon either with the single or double instrument, the entire ulcer being cut away if possible. This is not, as a rule, attended by much hemorrhage. The application of a solution of adrenalin prior to operation will make the bleeding even less. The rule has been, upon checking the hemorrhage, to apply the diluted lactic acid to the raw surface—the latter to be repeated from time to time during the progress of healing. In many cases, by this method of treatment, the progress of the laryngeal disease is checked, and in some cured.

Still many laryngologists consider the method too heroic and too questionable of ultimate good to be practised except in rare cases. Bryson Delavan has expressed himself on the whole as in favor of milder measures, and Lennox Browne, speaking of the combined curettement and use of lactic acid says: "But the cases must, I think, be rare in which the treatment would be justified by the result."

Gleitsman advises galvano-cautery operations upon the infiltrated posterior commissure, when dyspnea and odynphagia are well marked. I have personally had several opportunities of endorsing his experience upon this point. One advantage of the method of operation over curettement and excision by cutting forceps, etc., is that when properly performed, it does away with all possibility of auto-infection. The main points are (1st) to insure perfect stillness of the larynx while operating; and (2nd) to accurately gauge the extent of the burning incision. The second is but a corollary of the first. The larynx should be thoroughly cocainized, and then during the operation the patient's undivided attention should be devoted to uninterrupted and regular breathing.

Scheppegrell advocates the use of electrolysis or "cupric interstitial cataphoresis," for the disintegration of the tubercular deposit; and has invented a laryngeal electrode to promote the absorption of remedial agents into the diseased tissues.

Necrosis may attack any of the cartilages of the larynx, and frequently the epiglottis is the chief seat of sloughing. Fortunately, however, this condition is rarely attended by severe hemor-

rhage. The tubercular nodules are non-vascular, and being surrounded by epithelial cells, imbedded in a zone of granulation tissue, and this itself surrounded by small-cell infiltration, it can readily be seen that the likelihood of severe hemorrhages is limited. The consequence is that in necrotic conditions spray treatment to cleanse the diseased surfaces and stimulate to a better blood-supply (together with scraping away the dead tissue) is about all that can be done, apart from anodyne applications to relieve pain. Even the scraping may be considered of doubtful value.

When deglutition is very painful, sprays of cocaine or eucaine, or the two combined, are called for. The latter produces less nausea than the former, and the limit of saturation of eucaine being 5 per cent. in aqueous solution, it will probably be the safer one to use.

Further range of surgical measures is somewhat limited. *Papillomatous growths,* the result of progressive ulceration, may require removal by evulsion, snares, escharotics, etc., especially when they occur about the vocal cords or ventricular bands. Occasionally they form without ulceration, and assume the shape of ordinary papillomata with senile base. These, when interfering with respiration or phonation, should be removed.

It is doubtful if intubation can be of any use in laryngeal tuberculosis, as the stenosis is almost always above the vocal cords, upon which the flange of the tube is supposed to rest.

Tracheotomy, too, can rarely be advisable; perhaps only for the relief of impending suffocation; and there are few instances on record in which it has even then prolonged life more than a few days or weeks.

There is one other method of treatment that I have reserved to the last, inasmuch as it applies as well to pulmonary as laryngeal tuberculosis. I refer to the administration of intratracheal injections. In many of the most recent works on laryngology, such as those of Lennox Browne, Kyle, Shurly, Bishop, Price-Brown, etc., if mentioned at all, it is only in the most incidental manner. There have, however, during the present year, been two excellent monographs written upon the subject, the one by Thompson, of Cincinnati, and the other by Anderson, of Detroit. Lake, too, in his new and excellent work on laryngeal phthisis, speaks very favorably of it, and gives an illustration of his own intratracheal syringe devised for administering the injections required. Another surgeon by the name of Thompson, in 1852, and Bing in 1865, are both reported to have used intratracheal injections, with the expectation of curing pulmonary tuberculosis in this way; failing in the effort, the treatment fell at once into disuse. Later it was revived again, and Downie wrote in the *British Medical Journal* favorably upon it nine years ago.

For some months now I have used intratracheal injections for

chronic laryngitis and laryngeal and pulmonary tuberculosis, in a number of cases, with promising results, although it is too soon to place any proper estimate upon the value of the new method of treatment.

The early injections were chiefly aqueous solutions, with the addition of glycerine; and although good results were reported, it was not until oil was substituted for the water that the full beneficial results began to be realized—the oleaginous applications being so much less irritating. Of the various oils that have been used, none seem to suit the conditions so well as the purified hydrocarbons, extracted from crude petroleum. Besides the essential qualifications of blandness and softness, they possess the additional advantage of not being culture mediums.

The most effective medicines for use by the intratracheal method are the same that are used for stimulating sprays—stereoptines like menthol and thymol, and methyl-ethers like creosote and guaiacol, substances that are soluble in oils and that will volatilize slowly at the temperature of the body, the vapor from them reaching not only the larynx, but all parts of the lungs as well. The strength of the solutions should be from 1-2 to 2 per cent.

The writers mentioned claim that from 4 to 8 cubic centimetres of the mentho-camphor solution of 1 or 2 per cent. strength can be injected into the larynx without producing irritation, the larynx being bathed with it, and the whole bronchial tree medicated at the same time. The solution is felt by the patient in the bronchial tubes, and the odor can be detected in the breath of the patient for hours afterwards. In the latter lies one of the essential benefits of the treatment, as in the act of expiration the vaporized drug is brought in direct contact with the diseased laryngeal tissues.

One of the immediate results of the treatment is a warm, pleasant glow felt throughout the lungs, and extending over the entire body, even to the hands and feet. Another is the rapid sensation of cough, the larynx feeling soothed and comfortable, the sensation lasting in some cases for hours.

Menthol may be used of the strength of 1 or 2 per cent.; thymol, 1-2 to 1 per cent.; guaiacol, 1 per cent.; creosote, 1 per cent. A stronger solution of either of the latter would produce pain. Chlorophenol may be used in small doses, say 1 c.c. of 1 per cent. Of any of the others, the dose might be from 4 to 8 c.c. repeated once a day.

Lake is the only one of the writers mentioned who has referred to the matter of temperature. I may say, however, that in every instance that I have used this method, following his suggestion, I have first heated the instrument in warm water, and then filled it with the oil at blood temperature. By the use of the laryngoscope, the tip of the instrument was then guided over the epiglottis, and the patient instructed to inhale slowly while the stream was

poured into the larynx. Up to the present I have confined my own treatment in this line to the injection of 1 to 2 per cent. of menthol in albolene, the amount injected varying from 4 to 8 c.c. repeated every one or two days.

It is worthy of note that when thus given, and without using cocaine at all, the patients could scarcely feel the entrance of the fluid; but toward the latter part of the inhalation, the contact of the oil within the bronchial tubes would produce a slight cough, though only of slight duration.

So far, every patient that I have treated in this way, whether suffering from chronic bronchitis or tuberculosis, has expressed satisfaction with the new method of treatment.

CHRONIC ULCERATION OF STOMACH SIMULATING CANCEROUS DISEASE—RELATION OF A CASE OF GASTROENTEROSTOMY WITH MURPHY BUTTON—RECOVERY.

BY JAMES F. W. ROSS, M.D., TORONTO, ONT.,

AND

E. B. O'REILLY, M.D., HAMILTON, ONT.

In the short paper presented an effort will be made to impress upon the profession the fact that even after the abdomen has been opened it is difficult, if not impossible, to make a differential diagnosis between chronic ulceration and cancerous disease of the stomach. Our methods of diagnosis are very faulty and insufficient. Early diagnosis in either of these conditions is as yet almost out of the question.

Fagge says: "A case in which well-marked symptoms have existed for eighteen months, or longer, may generally be pronounced to be one of simple ulcer of the stomach, and not a case of malignant disease. On the other hand, cancer of the stomach may, for the most part, be diagnosed whenever the characteristic tumor is discovered accompanying the usual symptoms met with in these cases. Cases of simple ulcer affecting the pylorus have now been placed on record, in which this part has been so thickened and indurated that the presence of a scirrhous mass has been simulated."

Miss D. W., aged 28. From the patient's own statement it appears that she consulted a doctor regarding the condition of her stomach, with which she had been troubled for about three years. At times she felt perfectly well, and then again suffered from considerable discomfort after eating food. This discomfort frequently ended in vomiting. The vomited material was very sour and had an unpleasant odor. She found that raw fruits and any acids disagreed with her. She craved for sweet things. Her skin felt dry; the bowels were constipated. She entered the training-school of a hospital in April, 1899, and the gastric condition grew worse.

In August, 1899, she found it necessary to go home. She was then treated until December, but without benefit, in fact she seemed to be steadily growing worse. The abdomen became distended and pains set in in the back, and there was a great deal of soreness about the waist. Shortness of breath came on, and she found it necessary to sit up in order to get her breath. The pa-

tient then came under the care of Dr. E. B. O'Reilly, Hamilton, Ontario, whose notes are now given.

"The patient first came under observation in December, 1899. It was found that she had been, for some months, under treatment for dyspepsia. She was emaciated, and complained of suffering and pain whenever food was taken. Opium had been administered to relieve the pain, and the opium habit was already formed. Physical examination revealed nothing. Food was peptonized. In spite of this and the careful medication the symptoms again became aggravated.

"In January, 1900, after consultation with Dr. Griffin, the patient was sent to the Hamilton Hospital. Efforts were made to prevent fermentation of the stomach contents; rectal alimentation was persevered in with considerable benefit. The pain subsided and the patient gradually gained in weight. On March 24th, 1900, she was discharged from the hospital, and remained fairly well for two weeks, but as soon as food was passed into the stomach the symptoms again became aggravated, the pain returned, and the flatulence and nausea became troublesome. Great rigidity of the right rectus muscle was noticed. There were several profuse hemorrhages from the stomach and bowels. Exploratory incision was strongly urged. There were five severe hemorrhages in all.

"In April the patient grew worse daily. About the middle of May, 1900, as Dr. Ross was in town, I asked him to see the case with me. He also advised exploratory operation. The urinalysis showed the urine to be pale in color; sp. gr. 1.018; alkaline reaction; no sugar or albumen; slight mucoid sediment, with a few pus cells."

Dr. Ross' notes are as follows: "The patient was found, in May, 1900, extremely emaciated, rigidity of the right rectus muscle was noticed, and an indefinite thickening could be felt in the epigastric region. As the patient was only twenty-eight years of age, and as malignant disease of the stomach is rather rare at this period of life, there appeared to be good ground for hesitating before making an exact diagnosis. Diagnosis of ulcer of the stomach had been made when the patient was in the Hamilton Hospital in January.

"The symptoms pointed to obstruction of the pyloric end of the stomach, and it was not possible to say whether this obstruction was due to the presence of cancerous growth or to some other cause. The symptoms had extended over such a period that they pointed to the presence of an ulcer, but the thickening that could be distinctly made out led to the belief that, in all probability, malignant disease had been grafted on to the former condition of ulceration.

"There was no history of cancerous disease in the family.

Some dilatation of the stomach could be made out, but there was not the enormous dilatation so frequently found in cases of cancerous obstruction of the pylorus. The rhythmic muscle waves, so characteristic of pyloric obstruction, were not observed."

On the 5th of June, 1900, operation was performed by Dr. Ross, assisted by Dr. White. The abdomen was opened above the umbilicus and the stomach drawn out. A large growth was found at the pyloric end. The perigastric lymphatic glands were enlarged and the whole stomach wall looked exactly as it does in cases of cancer. The case was looked upon as hopeless, and a decision was arrived at not to attempt to remove the growth, but to give temporary relief by means of a gastroenterostomy.

The operation was rapidly performed by means of a large Murphy button and an anastomosis effected between the stomach and duodenum. The patient was not in a good condition owing to the previous starvation. The operation had to be performed rapidly to prevent collapse. Great care was taken, however, notwithstanding the necessity for haste, to carefully supply supporting sutures to prevent leakage. After the operation there was not much elevation of temperature or pulse. Patient made an uninterrupted convalescence.

On the 2nd of May, 1901, eleven months after operation, the patient weighed 140 pounds, looked the picture of health, and was just returning to complete her training as a nurse. On examination of the abdomen no mass could be felt. The patient was not suffering from any gastric symptoms.

Fagge says further: "That even when the symptoms point clearly to the existence of serious organic disease of the stomach there always remains the question whether this disease is simple chronic ulcer or cancer. Between these affections the diagnosis is often perfectly easy." And he might have added that it is sometimes extremely difficult.

In the case recorded there was no perforation with the formation of abscess cavity, such as is occasionally found to simulate cancer very closely.

An extremely interesting case is recorded by Sidney Martin and Bilton Pollard, of hour-glass contraction of the stomach with pyloric stenosis. This case helps to throw considerable light on the condition under discussion. The stomach was completely divided so that there was a larger right pouch and a somewhat smaller left pouch, formed as a consequence of the constriction across from the greater to the lesser curvature about its middle. A careful examination, *post mortem,* showed the presence of a chronic ulcer at the hour-glass constriction that apparently had excited persistent contraction of the circular muscular fibres, and led, with the formation of fibrous tissue, to permanent stricture similar to those strictures of the rectum produced by small ulcers.

The pyloric stenosis that was also present seemed to result from the presence of a small duodenal ulcer with perforation, and the consequent formation of a small abscess and a large amount of cicatricial tissue between the pylorus, the duodenum, and the transverse colon. The symptoms in this case lasted over a period of ten years.

In the case of Miss D. W. the stomach was drawn out and was not adherent.

In a very interesting article, Moynahan says: "The induration in some cases of ulcer may be of such density that the appearance and characteristics of the malignant growth may be mimicked with remarkable intensity. In one case of my own, which I submitted to the operation of gastroenterostomy, believing the pyloric mass to be malignant and not removable, the patient gained so rapidly in health, and has so stoutly maintained his improvement for a period extending over two years, that I am skeptical as to the accuracy of my diagnosis."

Thayer, Hirsch, Lindstrom, Kammerer and others have mentioned examples precisely similar, and Mayo Robson has recorded a case of pylorectomy for supposed malignant disease which, on minute examination, proved to be chronic inflammatory thickening.

In an interesting article by Satterthwaite, a description of the ulcers is given. He says: "A large number of gastric ulcers have rounded contour, sharply cut edges, surrounded by a zone of tough fibrous tissue. A puckering of the gastric walls about them is present, and bands of fibrous tissue radiate outwards."

This variety has been called the acute. In contradistinction to this is the chronic variety, which has greatly infiltrated walls and ragged, shelving edges, forming a sort of inverted cone, the apex being at the peritoneal covering of the stomach. When exposed to the eye there can scarcely be much mistaking such an ulcer, though it might be taken for a cancer or sarcoma. A microscopic section of such a mass might be taken for a round-celled sarcoma, because in both sarcoma and gastric ulcer there is a great similarity of the character of the round cells. But, if the non-malignant ulcer is brought into view the peculiar excavated centre should indicate its true character."

Satterthwaite's observation in this connection may be quite correct, but it must be difficult for a surgeon to get such a view at the time of operation unless a very large opening is made into the stomach wall.

Symptoms.—The ordinary symptoms of ulcer of the stomach are localized pain after eating, vomiting, hematemesis or melena, or both.

Pain.—The pain at first is often only an epigastric distress. Later on it becomes of a boring character, going through to the

back. When the stomach is empty there is little, if any, actual pain, but when filled with food there is apt to be some immediate distress, and after a couple of hours pain increases and is no doubt due to increased acidity from the pouring out of hydrochloric acid. The patient often obtains relief after vomiting, or after the food has been carried on through the pyloric end.

In many cases hematemesis is the first sign of gastric ulcer. It must be remembered that hematemesis may occasionally be fatal, apart altogether from the presence of gastric ulcer or gastric cancer, in such cases arising from chronic alcoholism and cirrhosis of the liver.

Many cases of perforation of gastric ulcer are on record, in which none of the symptoms of the condition were present previous to the sudden onset of the symptoms of perforation.

Dr. Soltau Fenwick thinks that anemia, with progressive emaciation and great loathing for food, with signs of subacute gastritis, are generally suggestive, at an early period, of cancer of the stomach. He says that in 100 cases of carcinoma of the stomach 60 affected the pyloric end, 30 the walls, and 10 the cardiac end. Pain was present in 90 per cent. of the cases. It was generally constant and scarcely relieved by vomiting, and was very liable to severe exacerbations. The vomiting varied a great deal with the seat of the disease. Hematemesis was usually slight and repeated melena rare. In physical examination auscultatory percussion was especially valuable.

Diagnosis.—The period of greatest frequency of ulcer is from the ages of twenty to thirty years. There can be no doubt that cancer of the stomach is met with at an early age. The age of the patient cannot, therefore, be considered as of much assistance in making a diagnosis.

In the differential diagnosis of these cases but little advance has been made, as has already been stated. All that can be said regarding the absence of hydrochloric acid is that it makes us suspicious of cancer. Hydrochloric acid is found sometimes in excess in cases of gastric ulcer. Lactic acid only appears late, and as a consequence of pyloric obstruction.

The greatest aid to early diagnosis is exploratory incision. Kocher advocates a more extensive use of the exploratory incision in doubtful cases of gastric diseases. He says that he has often regretted the delay in operating, but has never regretted doing the operation itself. He considers that the indications for operation in simple ulcer are repeated hemorrhages, even if small, especially if dilatation of the stomach is present; secondly, for violent pain and for frequent vomiting, when caused by retention from pyloric obstruction; thirdly, for perforation; and fourthly, for the possibility of the condition being not simple, but cancerous.

It would be well to add " for the possibility of the condition

being not cancerous but simple." Surely this is a more important indication for operative interference.

Guinard holds that, under two conditions, exploratory operation is justifiable: first, when there is distinct modification of gastric chemistry, especially apepsia and the presence of lactic acid after a test-meal; and, secondly, complete failure after careful dietary and medical treatment to keep up the weight of the patient's body to its normal standard, or to restore lost weight.

The indication for operation, given by some, is that it should be performed in the absence of hydrochloric acid when lactic acid is present, and when there is reduction in the amount of albumen digested.

It seems to be apparent that before long the practice will be to perform an exploratory operation in all cases of doubtful stomach affections.

Operation.—Chronic ulcers, with thickening simulating malignant disease, are cured by a simple gastroenterostomy. The removal of cancerous growths is a very formidable procedure, and not a very satisfactory one. To be satisfactory it must be performed very early in the disease before lymphatic infection has taken place.

Barling condemns the proposal to excise gastric ulcer which has not perforated.

Kuster opened the stomach in two cases and applied the actual cautery to the ulcer, and then performed gastroenterostomy. The performance of gastroenterostomy, without the application of the cautery, would no doubt have been sufficient to effect a cure. His operations were performed for what I have described as the acute ulcer, and not for the form under consideration, chronic ulcer with tumor mass. The excision of such a mass is an unjustifiable procedure.

It would be well to attempt to cure this simple acute ulcer by plication of the stomach wall. In this way the irritation of the food would cease to be a factor, and the ulcer would be given an opportunity to heal. The operation would be an extremely simple one, and would be accompanied by very little danger.

After Results of Gastroenterostomy.

After gastroenterostomy the stomach, if previously largely dilated, reduces in size in a very short time. There may be difficulty produced by a narrowing of the new orifice, but if the operation is properly performed this is not likely to occur. As a consequence of the operation both bile and pancreatic juice must find their way into the stomach, but they evidently do no harm.

Pyloric spasm is produced as a consequence of the presence of a gastric ulcer. After gastroenterostomy the hyperacidity of the stomach disappears, and the ulcer heals as a consequence of the rest obtained by the organ and the cessation of the spasm.

VACCINAL PROTECTION AGAINST SMALL-POX.*

BY P. H. BRYCE, M.A., M.D., TORONTO.

Although the practice of vaccination against small-pox has existed for a century, it may be said with truth that never, since it was formally accepted by the profession, has there been so much expressed scepticism as to-day on the part of the laity with regard to its protective qualities, and never a time when the profession has been so indifferent as to impressing the necessity for its proper performance upon the public.

From references in the journals of other countries, it would appear that Ontario is not alone in this particular, and we may hence naturally inquire into the reason for this. The first and most potent cause is the marvellous reduction in the mortality caused by the disease in civilized countries. For instance, the London, Eng., Health Report for 1899 gives a table to show the reduced rate since 1838. From it I take the following :

	Population.	Total Deaths.	Rate per Million.
1838	1,768,169	3,817	2,161
1848	2,244,837	1,620	722
1858	2,680,700	242	90
1868	3,131,160	597	191
1871	....	7,912	2,421
1878	3,652,837	1,417	387
1888	4,095,374	9	2
1898	4,504,766	1	0.2

As there had been in London since 1885 but four hundred and sixty-six deaths, it may be said that the disease as an epidemic has practically disappeared, while in Ontario between 1889 and 1898, there were but twenty-two recorded deaths from the disease. It will be remembered that the Montreal epidemic was in 1885. While it is true that public health work in the different countries has greatly developed within this period, in which the germ theory of disease has become a practical working hypothesis in every field of medicine, yet the fact stands that it would seem to be this very fact, associated with that already given, which explains why the public have been looking askance at the practice of vaccination. They have learned enough of the germ theory of disease to know that in vaccination we propose to insert the germ of a specific disease, and have casually learned that with it we may insert some other germ or germs which they have heard of, and which they have also learned may occasion serious results. And the profes-

* Read before the Ontario Medical Association, Toronto, June, 1901.

sion, many of whose members have never seen small-pox, but know enough about pyemia and septicemia, have travelled along the lines of least resistance, like the model politician, till they have either become sceptical as to the virtue of vaccination, or have desired to apply a *placebo* by a lymph without virulence, and then only by one insertion. Apropos of this, Dr. E. Hart in Allbutt's "System of Medicine" says: "So long as medical men in their mistaken good nature are found ready to yield to the ignorance or vanity of applicants for vaccination, and to make only one, or perhaps two, insignificant insertions of lymph into a child's arm, and to certify cases of that kind successfully vaccinated, so long shall we have to struggle against the fallacies and sophistries of anti-vaccinators. Better far let such applicants depart with their children unvaccinated than place them in a state of false security, and at the same time endanger the practice of one of the greatest prophylactics of modern times."

I would say that I believe that every older practitioner present will with me subscribe to this opinion, and it is with a view to arousing anew the interest in this at once the first and greatest of our discoveries in the biological field of immunity, that I have prepared this paper.

The question of protective vaccination against small-pox has two parts—that of the art of vaccination and the quality of the lymph. Briefly, then, regarding the art of vaccination: All are aware that since that most virulent of modern epidemics in England, and indeed all the world, in 1871-74, the Public Vaccination Act made the appointment of public vaccinators and vaccination stations compulsory on the part of municipalities, while every student, on graduation, was required to present a certificate of having been taught and having practised the art. To-day this practice not only exists in England, but the Local Government Board have further an organized department known as "The National Vaccination Establishment," with eleven Educational Vaccination Stations in London, and eighteen in other parts of the kingdom. These stations are utilized for educating those medical practitioners who would qualify as Public Vaccinators, and municipalities cannot employ as Public Vaccinator any one without a special certificate so obtained. The last report states that 47,097 applications for vaccine by Public Vaccinators were received, and 499,281 capillary tubes were sent out from the Animal Vaccine Station in London. Referring to the few vaccinations performed at the Central Vaccine Station, the report states there were 2,615 primary vaccinations, five separate insertions being made in each case. All but 149 succeeded at the first attempt. Of 966 primarily vaccinated from calf to arm, eight did not return, and of the rest, or, 958, 825 had taken in five places, 45 in four, 28 in three, 19 in two, 15 in one place, and 26 failed on

the first attempt. The aggregate insertion success was 92.7 per cent. Students vaccinated 14 cases, of which 11 took in five places, 1 in four, and two failed at the first attempt, the rate of success being 84.3 per cent. To complete this brief reference, 1,634 vaccinations were done with glycerinated calf lymph by the directors of the station; of these 17 did not return, and of 1,617 returning, 1,029 had taken in five places, 179 in four, 103 in three, 81 in two, 104 in one, and 121 failed in the first attempt, or the insertion rate of success was 79.6 per cent.; that is a difference between calf-to-arm and glycerinated lymph of 13.1 per cent. of 941 revaccinations, all calf-to-arm; the insertion success was 93.8 per cent., or 1 per cent. greater than in primary vaccinations. I have quoted thus particularly from the 1899-1900 Report both to save repetition, and to illustrate how the oldest public vaccination work is performed at the end of a century, and to indicate what the official practice is to-day, in order that those who have continued to practise what was taught before the bacteriology of vaccination was understood may be confirmed in their belief, and further, that the younger members of the profession, who have never seen small-pox, or may never have had vaccination taught them or seen it practised, may understand what the best practice is.

The necessity for these remarks must be my excuse for making them before this audience, since during the past two years the public health service has had to face a very general introduction of small-pox into the Province, and has had to deal anew with the problem of vaccination, which, owing to the inertia of the profession, the indifference of the people, and the parsimony of municipalities, had practically become an unpractised art.

It is now proper that we should refer briefly to the quality of the lymph to be used in vaccination. All are aware of the discussions which for years went on as to whether variola was in man the same disease which, as vaccinia, was known in bovines. To-day, both experiment and the theory of immunity seem to have settled the question in the affirmative, and hence we may conclude that as we have variations in type of variola, so we may have variations in type of vaccinia. Further, just as we have observed that a mild type of some contagious disease has left the patient less immune to the same disease, *e.g.*, measles, so we may assume that a mild type of variola, as has existed during the past two years, will prove less protective than one more severe. Similarly, we ought to conclude that as persons who have had small-pox in early years have in some instances been vaccinated successfully, so we may conclude that active vaccine will be to some extent successful within a relatively short period after mild variola. We have both from analogy and experience reason, then, to conclude that vaccination, to be protective, must not only be inoculated at a number of points in order to produce a normal protection, but also that

the lymph must have a normal virulence. Do lymphs in our experience vary in virulence, or is it only the presence of microbes making a symbiosis possible which makes the difference? I have no doubt that we have both conditions in practice. Let us inquire into the phenomena of vaccination. Assuming a properly cleansed arm has had one or more insertions made through the epidermis, we have locally a temporary irritation with inflammation, which soon disappears. In normal vaccination, we find on the third or fourth day an inflamed point appears. The capillaries of the part become engorged with blood, leucocytes accumulate on them. Minute organisms, the assumed germs of vaccinia, are also present in the blood serum and enclosed within leucocytes. The surrounding tissues respond, and much cell proliferation takes place, which as the disease progresses breaks down into granular fragments. More leucocytes are brought to the part, more cell proliferation, more infiltration of the tissues, and more swelling of the part takes place in the struggle to overcome the invasion of the microbes of the disease. As in all other inoculation experiments, we see the same three factors determining the issue: (*a*) dose of the virus; (*b*) the activity of the virus; (*c*) the resistance of the tissues. Lessen the dose, as the number of insertions, or their extent and depth, inoculate with a virus attenuated by age, heat, or natural mildness, and assume an average bactericidal activity of the blood serum and tissue cells, and the inoculation becomes a failure. Reverse the conditions, and introduce with a normal virus some forms, as a staphylococcus, whose staphylotoxins act as hemolysins and destroyers of leucocytes, and the invasion of a normal lymph is assured.

Now, in practice we find that, in different instances, any of these several conditions may exist; and what we seek in normal vaccination is the *juste milieu,* a happy medium of the several factors. For instance, we do not vaccinate, except under exposure to small-pox, a delicate child with but little resisting power to disease, and, if we must vaccinate, will make smaller and fewer insertions. We must, however, in order to obtain normal results in an average person, inoculate with three or four or five insertions. Moreover, we must seek for a lymph normal in strength, not attenuated by age or heat, but not loaded with microbes, tending unduly to assist in the local breaking down of tissue. That such conditions are all readily obtainable is shown by the experience of many, and by the report of the National Vaccine Establishment, already referred to. Of the 2,615 vaccinations there performed, 25 cases showed some abnormal course of their vaccination. "In 21 of these the abnormality was sore arm, in many cases caused by domestic maltreatment; two cases were of transient eruption, and two were reported to be erysipelas on the 15th and 11th days after inoculation." The problem, therefore, which apart

from proper surgery, the profession wishes solved, is one of being supplied with a lymph which fulfils normal requirements.

When bovine lymph was first introduced, producers advertised freely the peculiar virtues of their own vaccine owing to the stock or source whence it came, and all will remember Martin's famous Beaugency brand. To-day, however, it will appear evident to us that, as with their many environments, affecting microbes, being understood, so we would expect that vaccines sent out from different producers will tend to vary, if left to themselves, and not carefully studied and tested. For instance, in the English Government Report referred to, it is stated that the hot, dry weather of summer acted prejudicially on the lymph, first through storage, and second through its effects on the calves. The vesicles tended to run a very rapid course, because dry and aborted with small yields of lymph and of variable quality. Further, the poor pasturage affected the calves, and even in the autumn those thin and in poor health responded feebly, some entirely refusing to yield vesicles—due most probably to inert lymph inoculations.

On this continent, as we all know, the production of vaccine lymph is almost wholly in the hands of private manufacturers, and there is therefore no standard of vaccine lymph. Some of the larger firms have equipped their places with every known means for supplying pure lymph; healthy calves, tested for tuberculosis, are placed in well-ventilated stables, cleansed to the highest degree. In one which I am acquainted with, asepsis would seem to be practically complete. After careful preparation of the calf with antiseptic washing, and shaving, the insertions are made and the wound dressed with a paste, and afterwards dressed with aseptic absorbent gauze. On the fourth or fifth day the lymph pulp is taken into sterilized vessels and immediately treated with four to six times its volume of 50 per cent. neutral glycerine, which it is asserted, and has been proved in England, France and Germany, will practically remove every extraneous organism within a month. That a virus of a normal strength remains may be accepted on the statement of many vaccinators, but especially may we accept the words of Dr. S. Moncton Copeman, who for ten years has had special charge of this work in the National Vaccine Establishment of England. He says: "In glycerinized calf lymph, properly produced, we have then a preparation which, while even more efficient as vaccine than the original lymph, can be produced entirely free from the 'extraneous' organisms, which at one time or another have been isolated from fresh or stored lymph, which is taken at the fourth day from the calf and immediately treated and stored for future use. All this seems so very simple that it would at first sight appear that the product would always be practically normal, and that any vaccine so prepared would produce successful results."

Unfortunately, as many of us have experienced during the past two years, this is far from being the case. It has been my lot to meet practitioners in many parts of the country, and no question is so common as, "What vaccine do you prefer?" Now, I know of some seven distinct firms whose vaccines are sold in this Province, and I regret to say that I have found, with those using vaccine, that varying results are often obtained, not only from different lymphs, but the lymph got from the same firm in different lots, and this has happened at every season of the year. In some there would seem to be a perfectly normal pock on the eighth day, but with an excessive tissue infiltration, while with others there is a delayed activity to the twelfth day or later, a certain superficial inflammatory action, but producing no normal pock, and at times containing even no lymph.

From what has been quoted from the English report, this would seem to correspond with the poor results obtained during the heat of summer from some animals, while the excessive tissue infiltration would seem to be due either to a lymph of high activity or a normal lymph from which "extraneous" microbes have not been eliminated. With regard to the delayed "take," I have again and again shown, experimentally, as have others, that it is not protection against a more active lymph applied within a month afterwards, and I regret to say that in a number of instances such lymph has not proved protective against the mild type of variola which we have encountered during these two years, although seemingly it has modified it considerably in some cases. I may say further that vaccine on points has been sold, prepared as in former years, but without glycerine, that it has proved, at least in cold weather, equally successful with the best glycerinated, and apparently has not during the past season produced any greater tissue infiltration than some glycerinated lymphs. From the standpoint of a public health officer dealing with outbreaks of small-pox, it is apparent that any vaccinator will insist as a primary requisite that his vaccine must be protective as rapidly and as certainly as possible, and hence he will insist that if an exposed person is to be protected up to the fourth day after exposure, it must be an active lymph which matures by the eighth day. Further, it must be a lymph, which, when a school has been vaccinated, will produce such a normal pock that for years after the cicatrix is a constant witness to its efficiency. I am quite aware that several firms and their physicians say that vaccinal protection can be got by twelfth-day lymph, and without practically any systemic disturbance or fever. I regret to say that such has not been our experience in Ontario. In the 1900 Philadelphia edition of Levy and Klemperer on "Chinical Bacteriology," we have in the chapter on infection some of the biological reasons for these several anomalies discussed. We have (1) the class and species of the infecting

organism; (2) the general or localized infection; (3) the virulence of the infectious agent, and its decreasing virulence under culture external to the body, or in insusceptible animals, and its increasing virulence by passing through susceptible animals; (4) its greater communicability when virulent, and its increasing virulence with the severity of the disease; (5) the mild nature of the infection, with an increased virulence due to symbiosis; (6) the different portals of infecton; (7) the susceptibility of the infected organism or predisposition, which may be a general or localized predisposition, and (8) secondary infections. As the counterpart of infection he discusses "Immunity," and thereunder discusses attenuation of the contagion by high temperatures, by age, exposure to oxygen, antiseptics, dilutions, and by antitoxins, and then refers to immunity as being only relative and not even conceivably absolute; it is also in general specifically limited, when produced, to a particular germ, as vaccination protecting only against small-pox, and finally he discusses the intra-systemic processes by which immunity is brought about. Now, without entering into the discussion of any of these several modifying influences, I would say that it is more important for us to remember in discussing the practice of vaccination, the action of vaccine, the extent of the infection produced by it, and the degree of its protectiveness, that every one of these factors enters into the problem, and that, while we are not as individuals in a position to govern the conditions which enter into the preparation of vaccines, as now put upon the market, we can do much by careful observation to determine, each for himself, which product gives most constantly a normal and even result; and further, that we can, by realizing the essentially scientific character of the immunizing process we are practising, lend to it all the care which we would in any other surgical operation, and in so doing not only add still greater lustre to the fame of the immortal Jenner, but give yet greater utility to a scientific discovery which has robbed the most terrible disease of a preceding century of its victims, and saved to the family and the State a notable proportion of the population.

IS VACCINATION WHAT IT SHOULD BE?

BY A. J. HARRINGTON, M.D., M.R.C.S. (ENG.), TORONTO.

For a number of years I have been thoroughly convinced that vaccination as usually performed by the general practitioner is far from being as carefully carried out as it should be in these stringent aseptic days, and that a certain proportion of the bad results of vaccination is due to carelessness, or probably, to be more precise, indifference on the part of the vaccinator. What I mean by bad results are the introduction into the wound of infective organisms with all its dreadful train of lymphangitis, lymphadenitis and abscess or dermatitis, erysipelas or staphylococcal or streptococcal invasion. Now, this, in my mind, is due (when the practitioner is to blame) to lack of cleanliness in the operation either in improper preparation of the parts before vaccination, by not sterilizing the instrument by which the operation is performed, by not giving the lymph sufficient time to dry, and lastly, by improper treatment of the wound immediately afterwards. Now, you may think I am presuming too far when I make these statements, but I am convinced that a great majority of vaccinations to-day are carried out improperly, and this has, with good reason, put a lot of distrust in the minds of the people which should not be. Is vaccination any different to-day from what it was a century ago? Yes, different to-day to what it was eighteen months ago, although the underlying principles are exactly the same as it was when Jenner originated it and vaccinated his first patient in 1796. It is in the technique that the difference lies, and like all things else has greatly improved, and the quill and ivory point should be laid on the shelf as relics of the past, and glycerinized lymph in hermetically sealed tubes used as it represents the acme of scientific progress. Now, although full instructions are given and the literature of vaccination is constantly flowing into our offices and is as regularly passed on to the waste-basket, yet we go on in the same old groove. The manufacturers take the greatest prophylactic precautions in the preparation of the lymph. The heifers before being vaccinated are examined by a competent veterinary surgeon and tested with tuberculin, and if any evidence of disease is found the animal is rejected. Not only is this the case, but the heifers are then carefully shaved, scrubbed, and the surface of their bodies made sterile before the inoculation takes place, and similar careful manipulation of the animal takes place when abstracting from the cowpox vesicle the lymph which is to be used for vaccination. The pulp of the cowpox is mixed with pure glycerine, and is then put into capillary tubes, each tube holding enough lymph for one vaccination. Now, as the manufacturers use such precautions in getting us the lymph, we should use equally precautionary measures in

transferring the lymph from the tubes to our patients, and it might be as well here to indicate exactly how to do it, although, as I have said, literature is unlimited on this particular subject. The spot that is to be vaccinated should be carefully cleansed with soap and water and then dried. No antiseptics should be applied to the skin at this time. A small area should be scarified with a needle which has been previously sterilized by passing through the flame of an alcohol lamp or a Bunsen burner, and the lymph (always glycerinized lymph in the tube) is applied to the scarified area and thoroughly rubbed in. Do not draw blood if you can possibly avoid it, as a gentle oozing of serum gives much better results. If you draw blood, while it is drying the fibrin of the clot contracting forces the lymph through the serum to the surface as in ordinary coagulation of the blood and the effect of the vaccination is lost, and this is a great cause, to my mind, of the majority of cases where vaccination does not take in persons who have not previously been vaccinated. Now, give plenty of time for the lymph to dry thoroughly, then apply a clean piece of cotton or absorbent cotton over the vaccinated area, and retain it in place with adhesive plaster. This method of vaccination requires much more time than the old way, but the difference in results will well repay the additional care, and sore and swollen arms will be a rarity.

Instruct your patient to come back in a day or two and let you inspect the sore. Remove the dressing and apply a fresh one. Strict surgical cleanliness should be observed in every case in the after dressing. Now, shall I do all this for the fee (which I believe now is a tariff fee)? Yes; the profession regulate what all your fees should be, and your representatives in the Council have decreed what the fees shall be, and you must look on your work as highly philanthropic and a duty to your fellow-being—the same duty which you are told you owe to King Edward when you are summoned to attend police court to give medical testimony and no fee is allowed you. Now, there is another and greater side to this question, and that is, the patient's side, and it is here that that species of monomaniac, commonly known as anti-vaccinationist gets in a few of his digs. Since the world began there has never been anything put forth for the betterment of the human family but has had strenuous opposition by a lot of crack-brained extremists whom neither argument nor demonstration can ever influence, who seem to live solely for the purpose of obstructing everything beneficial, and who rant and rave and in due time die, and, like a bubble, burst and mingle with the fathomless depths and leave no evidence of the fact that they were ever on earth. Not so with the great Jenner, who is greater to-day than he was while here on earth, who did his work solely for the benefit of mankind, whose observations were worked out and demonstrated alone, and we all know what changes have been wrought in this terrible disease which cost over 600,000 lives a year in Europe alone. Jenner

studied the subject minutely and mastered all its details, and gave it gratuitously to the world. He vaccinated all who came to him. He sent out lymphs to the ends of the world, and would have spent all his wealth and become impoverished if parliament had not made him liberal grants. What a noble example of philanthropy! Yet still the cry of the ranter is heard in doleful cadence against vaccination. He in his most lucid intervals cannot, or maybe I should say will not, see the effects of this means of delivery from the greatest scourge that has ever preyed upon the human family. It is remarkable that one of the greatest strongholds of the anti-vaccinationist has been in Gloucester, the home of Jenner. This city has recently had a crack that has torn the masks from the eyes of its citizens. It has suffered an epidemic the like of which has not been experienced by any other town in England. Between 1886 and 1894 the number of public vaccinations had fallen from 1,095 to 34 and in ten years the total was only 2,378, though in that period 15,682 children had been born and only 3,176 died. The epidemic began with a case of smallpox in an unvaccinated child, which was concealed and treated as measles. The end of the epidemic was certainly not due to effective isolation nor to the exhaustion of the virulence of the infection. When the city began to be boycotted the citizens appealed to the city council, the council appealed to the doctors, and the doctors replied that vaccination and revaccination were the necessity of the time. Finally, the Board of Guardians instructed the vaccination officer to carry out the law. More than 36,000 vaccinations were effected. The epidemic was brought under control; 2,036 persons were attacked and 443 died. The Guardians are now prosecuting those who are not vaccinated with energy far greater than that with which they formerly opposed it, and yet the anti-vaccinationist rants and rants and roars, and like a broncho kicks because it is his nature to do so, but with less brains than that animal because a broncho can have sense pounded into him but the other animal cannot. Let us drop comparative anatomy for a moment and return to the patient's side of the question. There are any number of unreasonable people who will lay the blame of sore arms or inflammatory lesions to the doctor or to the vaccine, whereas in nine hundred and ninety-nine cases in every thousand the bad result is due to downright carelessness on the part of the patient or to some direct injury to the sore. You vaccinate a child and instruct the mother to let you examine the arm in a couple of days; two weeks hence she appears with her child with arm swollen from elbow to shoulder or an erysipelatous rash extending widely from the vaccinated spot or probably an abscess forming in axilla. You ask yourself the question, Did I vaccinate this child with the care that I should have? and if you think you have or know you have, you are ready to fight for yourself, and on inquiry you find the child had received a blow on its arm or had in its sleep scratched off the scab and inoculated the sore from its finger nails.

Then you should point out to her that it is her own fault, that you instructed her to come to you and she was too careless to do so and she must take the consequences. Other people whose fathers or grandfathers or some ancestor has been kind enough to hand down along the ancestral line some transmissible disease or cachexia, forget that these may be a factor in their children's health, and these afflictions setting in after vaccination, of course the credit is given the vaccine which they claim has been the cause thereof, or more unkindly they will give you the credit of unskilfulness.

How should an ulcerated arm be treated? Exactly in a similar way that you would treat any open wound which is healing by granulation. The belief prevails in the community that a suppurating sore is not an unnatural sequence of successful vaccination and therefore must be patiently borne. The readiness with which proper applications remedy the condition disproves this belief. The best way to treat these ulcerations is to wash the sore (after having removed the scab) and the surrounding skin with alcohol and a solution of nitrate of silver applied over the whole sore of a strength of from one to one and a half drams of nitrate of silver to the ounce of water, until the surface is covered with a thick white layer and a good dusting powder of subiodide or subnitrate of bismuth applied, and the whole covered with gauze and bandage. This can be reapplied in a few days if it be thought necessary, and is indeed a most satisfactory treatment.

Self-vaccination or vaccination of children by parents should be prevented by law, and the physician who takes improper precautions should be held responsible. Another point which is very important is the ages at which vaccination should be performed. On March 16th, 1898, the President of the Local Government Board in London introduced the Vaccination Acts Amendment Bill into the House of Commons, and clause 1 fixes the age limit within which the child shall be vaccinated at twelve months instead of three months as heretofore. This is much more satisfactory, as many children at three months are unfit for vaccination, whereas if the child is beyond the first stages of dentition the possibilities of blaming lymph for transmitted disease as syphilis or tuberculosis is practically done away with. That a revaccination should take place about puberty is now proven beyond doubt, and I can do no better than give the words of the veteran observer, Dr. William W. Walsh, recently stated before the Philadelphia County Medical Society regarding the recent epidemic:

"Not one thus far who has been vaccinated previous to exposure has contracted smallpox. About fifty individuals, including physicians, nurses and attendants, have been continuously and freely exposed to the disease.

"We have, from time to time, received in the hospital persons with well-marked and even fatal smallpox in whom vaccination some weeks before had failed.

"Many physicians hesitate about vaccinating individuals who

are suffering from some other disease. At the Municipal Hospital recently scores of patients suffering from diphtheria and scarlet fever were vaccinated as a precautionary measure. The vaccination did not unfavorably influence the original disease, and, on the other hand, the course of the vaccinia was in no case unusual.

"Since the beginning of the present year, about 300 cases of smallpox have been treated at the hospital. Of this number not a single patient had been recently successfully vaccinated. The shortest period elapsing between a successful vaccination and the contraction of the disease was five years. Whilst the majority of the patients admitted were unvaccinated, a very large number had been vaccinated in infancy.

"I believe that it may be laid down as a rule that if a child is successfully vaccinated in infancy, and again at the age of puberty, the protection will be permanent. The exceptions to this rule, however, may be sufficiently frequent to warrant repetition of the vaccination whenever there is exposure to smallpox."

There is yet another matter which I would like to touch upon, and which, I think, could be easily remedied, and that is the matter of public vaccination, which, I think, is a great injustice to the general practitioner. Of course, I do not know how it affects every practitioner, but I know that during the recent general vaccination by Dr. Sheard and his assistants, at the City Hall, quite a number of my patients applied there and were vaccinated for no other reason than to save the vaccination fee. The parents of several of these children who were vaccinated, are wealthy people. Would it not be as well for the Health Officer to make some inquiry into cases of this nature, and send them back to the family physician to be vaccinated? The examination of individuals employed in large establishments is another very important matter, and is also very imperfect. In these examinations I believe the size of the scar is taken as an indication of successful vaccination. This is a most unreliable test, as the best vaccinations leave the arm very little altered, but always indicated by a scar.

In these examinations if the scar is over seven years old revaccination should be ordered, and even this short period does not always give immunity, as the duration of immunity conferred by vaccination is variable. In the face of an epidemic vaccination of all who have not been vaccinated for six or seven years should be enforced.

That vaccination should be compulsory is warranted by more than a century of experience, and we hope soon to see Acts passed making vaccination compulsory in infancy and revaccination at puberty, and again in the face of an epidemic if the patient has not been vaccinated within seven years of that epidemic. In conclusion, I think every physician should use all the influence he can to urge revaccination in all cases. And to-day, in view of the fact that smallpox is on the increase in the northern part of this province, it is more imperative than ever that the utmost vigor should be put forth to keep down this horrible scourge. A. J. H.

THE SHIP SURGEON.

BY VERNON A. CHAPMAN, M.D.,
Ship Surgeon, SS. *Werkendam.*

THE Greeks and Romans are still at war!
'Twas a noble jousting match.
The field was No. 2 steerage,
Just forward the baggage hatch

(Here comes a confounded stoker,
Interrupting the train o' my thoughts.
If he stoked furnace more and stoked himself less,
He'd have less of pain in his guts.
"Got krämps!" with his hands on his belly,
He groans in bad English and Dutch;
If he stoked furnace more and stoked himself less,
'Twould be better for all, far much.)

The Greeks and Romans are still at war!
Though not fighting at city gates.
The field was No. 2 steerage,
And the weapons were tin dinner-plates.

It seems the Greeks tackled the Romans
("Dagoes" we call them now),
And one of the Greeks stopped a tin dinner-plate
Sailing edgewise, with his left eyebrow.

Well, it only required four stitches
To bring that back to its place;
And it took two more to stop the gore
In the side of a Roman's face.

Three stitches sufficed to re-establish
The fallen Roman nose.
Another Greek had a broken head,
And was minus the seat of his clothes.

Yes, 'twas a noble jousting match,
Though perhaps not now known by that name.
For shields and armor they used tin plates;
Their arms were more of the same.

'Twas viewed by many nations—
Some seventeen I should say;
The steerage cat couldn't stand it—
He sprang up the companionway.

Greek, Russian, Arab,
Turk, Arminian, Maltese—
What in the world will Uncle Sam do
With such "citizens" as these?

Well, well, I'm only the "Dökter";
I can but mend their heads.
'Tis a relief when they are landed,
And I see the smoke o' their burning beds.

Public Health and Hygiene.

. . . IN CHARGE OF . . .

J. J. CASSIDY, M.D., AND E. H. ADAMS, M.D.

FIRST QUARTERLY MEETING OF THE PROVINCIAL BOARD OF HEALTH.

THE first quarterly meeting of the Provincial Board of Health for the current year was held January 8th and 9th, in the office of the Secretary, Parliament Buildings. Dr. Vaux, Chairman, presided. The other members present were: Drs. Cassidy, Kitchen, Oldright, Douglas, McCullough and Bryce.

A letter was read from Dr. McKague, Medical Health Officer at Acton, protesting strongly against the action of Dr. Mavety, M. H. O. at Toronto Junction, in giving a certificate to Mrs. Vance, who was put off the train at the Junction on December 21st, accused of smallpox, and who afterwards developed the disease at Acton, and caused an outbreak at that point. The village of Acton claimed compensation from the Junction for the expense they were put to.

Dr. Bryce, in presenting his report on smallpox, said that, with the exception of a few weeks last summer, smallpox had existed in Ontario during the whole of the year 1901. A total of 1,868 cases had been reported. The largest outbreaks were in the unorganized districts, 750 cases; Carleton County, 237 cases; Kent, 165 cases, and Brant, 125 cases. There had been twelve deaths, or a mortality of about two-thirds of 1 per cent., a record which had been exceeded by several other contagious diseases, which had been prevalent during the year. He referred to the extensive outbreaks in many of the States of the Union, which in most cases had been mild, as in Ontario, but during the last three months of 1901 there had been in Philadelphia alone 1,003 cases and 142 deaths, the mortality there having increased from 3 per cent. in the first nine months to 10 per cent. in the last quarter. In Wisconsin there were 1,010 cases in December and 4,415 cases and 22 deaths in the whole year. In Boston in the last six months the mortality has been 10 per cent. The fact that the disease had become more virulent in many of the United States in the last few months was full of meaning to us.

The epidemic in this Province could be traced to five centres, and was owing largely to the neglect to deal with the outbreak

promptly, due to apparent or real doubt as to the character of the disease they had to deal with. In Northern Ontario particularly the lesson had been learned, and companies employing lumbermen who had been careless or indifferent were now vigilant and were employing camp physicians. The action of the Ottawa authorities, when they were convinced the disease there was smallpox, had been prompt and creditable.

Local boards of health and councils, in addition to the fear of being looked upon as in league with the health officers, were, further, fearful of being wasteful of public funds, if they supplied vaccine and paid public vaccinators. The mildness of the disease and the prompt stamping out of it in the past are principally responsible for these difficulties, since it had been his experience that the great body of the people in the presence of general exposure to smallpox of a severe type, are ready to be protected by vaccination, and indeed are believers in its efficiency, as proved for two hundred years.

He advised compulsory vaccination in those localities where the disease broke out, as in at least thirty instances the disease was confined to the first case.

January 9th the principal proceedings were the Chairman's address, and the report of the Committee on Sewage. Dr. Vaux stated that "the interest which a year ago was manifested in devising plans to find a cure for tuberculosis has naturally during the last few months been overshadowed by the invasion of our country by smallpox; not that we have grown careless about the former disease, but because the latter has suddenly assumed proportions which had forced it on our attention, and because the public are aroused to the danger confronting them.

"There are between four and five hundred cases of the disease in the Province at present, despite the fact that it was thought in August that the epidemic had been stopped. In the last year there was a total of 1,868 cases. Fortunately, the disease had been of a mild type, but none the less fearsome for that."

According to Dr. Bryce, who presented a report on the sewage question to the Board, there were two general ways of dealing with sewage disposal; first, by disposal on sewage farms, and, secondly, by the use of septic tanks. The great trouble found in large cities is in the fact that the sewers have been built in such a way that heavy rainfalls often cause them to flood cellars, owing to their being required to carry away storm water as well as sewage.

Surface drains, or a separate system for the disposal of storm water was suggested. According to the report, half the water carried by the sewers in Toronto is waste water that can be controlled by the use of water meters, which, if done, would effect a saving in the Waterworks Department of a large sum annually.

The report also says: "If, in addition, in the case of Toronto, the amount yearly wasted in dredging the slips were added, it is probable that the sewage disposal works could be carried on without any greater outlay than that wasted to-day in unnecessary pumping. But this is only the beginning of the economy, for if the amount of sewage passing into the sewers were reduced by half, the amount of liquids to be dealt with as sewage would be reduced one-half."

In conclusion, it was suggested that the Board might give some useful advice, backed up by laboratory experiments.

At the afternoon session of the Board Dr. J. J. Cassidy spoke of the cases of poisoning which sometimes occur from canned fish, and suggested that in the interests of the medical profession and of science, the doctors whose attention such cases came under should send a sample of the affected fish to the Government Laboratory in this city for analysis. This suggestion was approved of.

Dr. Cassidy also recommended that the Committee on Contagious Diseases be requested to prepare a leaflet, for the use of local boards of health, dealing with the prevention of tuberculosis. This recommendation was adopted.

The rules which were adopted by the Conference of State and Provincial Boards of Health (American Public Health Association), at the meeting at Niagara Falls, September 13th, 1901, were discussed in Committee of the Whole. They refer to (1) Isolation or quarantine regulations pertaining to communicable diseases; (2) Disinfection during the presence of the disease; (3) Release from isolation or quarantine. The rules, with some amendments, were adopted. The Board then adjourned.

Directions for Subcutaneous Injection of Iodipin.—Dr. Neisser's Kgl. Univ.-Klinik for diseases of the skin at Breslau.—Iodipin containing 25 per cent. of iodine is injected into the gluteal region to the extent of 20c.cm. daily for ten successive days. The preparation should be previously warmed to the body temperature. This average dose of 20c.cm. may be varied as occasion requires. A syringe with wide discharge aperture and a wide canula should be used, because the preparation is difficult to inject on account of its thick syrupy consistence. For convenience of handling, the syringe should have a transverse arm. The canula should be from 5 to 7 cm long, so as to be inserted obliquely under the skin as far as possible, and then the puncture closes better after the canula is withdrawn, and a piece of adherent plaster should be applied to prevent the iodopin oozing out. Intermuscular injections are to be avoided, as they give rise to a sense of tension and much pain. To avoid danger of injecting into a vein, it is advisable after making the puncture to remove the syringe from the canula and wait to see whether blood flows.

Selected Articles.

HEADACHES, THEIR CAUSES AND TREATMENT.

BY L. H. WARNER, A.M., PH.G., M.D., NEW YORK,
Pathologist and Bacteriologist, formerly Bacteriologist to St. Catharine's Hospital.

Migraine at times represents an hereditary predisposition, often accompanies anemia and diseases of the female generative organs. One of its frequent causes is dyspepsia due to chronic gastric catarrh, dilatation of stomach, toxemia, etc.

We often find imperfect digestion of hydro-carbons. Migraine in children is often due to overwork in school. The term migraine covers a wide field of human ailments, and too frequently migraine remedies are resorted to when absolutely not indicated. Migraine is a dulness or depression of spirits caused by disorders of some part of the organism and causing dull pain in one side of the head. The various disorders of the digestive tract or of the female generative organs are mostly the etiological factors of this febrile condition. The milder form of neuralgia is often pronounced migraine.

There are three forms of migraine, simple, ophthalmic, and ophthalmoplegic. Under the first heading come all those cases in which there are hemicrania, nausea, vomiting, and other disturbances more or less severe, commonly known as bilious headache. The ophthalmic form is characterized by scintillating scotomata and may follow on or alternate with the first. It may be accompanied by hemianopsia sensory and motor disturbance.

The third form is characterized by intense headache, much more hemicranial in character than in the other cases, and which rapidly runs into paralysis of the third nerve, occurring on the same side as the pain.

Migraine is considered a disease due to autointoxication, and is very readily caused in some neurasthenic patients by an effort whether mental or physical, however slight. Uremia not uncommonly causes migraine, which is then associated with nausea and vomiting, the complex of symptoms thus simulating a gastric disorder. Migraine frequently begins in early childhood and reaches its height in early adult life, and declines after the meridian of life. It may be distinguished from other forms of headache and neuralgia by its peculiar constitutional and paroxysmal type, by

its aurea or prodromes, and by its gastric disturbances. Imperfect nutrition impairs the blood, and impaired blood prevents the proper distribution of tissue pabulum. The normal activity of a vital tissue (such as the blood) is the only cause that both requires and permits it to use up pabulum. Function and nutrition are in the relation of cause and effect. Function by consuming plasma stimulates nutrition; without it there is no demand for new plasma, hence nutrition grows weaker and weaker and autointoxication follows. Chlorosis is often a strongly predisposing cause of migraine.

In selecting the treatment for Migraine, we must consider prophylactic measures; the avoidance of fatigue, hunger, mental strain, chills, constipation, antisepsis, etc.; advising real rest after meals and a carefully selected diet. The various coal-tar products are more or less employed in the treatment of migraine, but the action of many of them proves too uncertain. J. King Martyn (*British Med. Journal,* 1898, page 807) reports a case of stomatitis following the administration of antipyrin. Kronig (*Berliner Klinische Wochenschrift,* November, 1895) cites cases of phenacetine and acetanilid poisoning. Antipyretics will have untoward effects on skin eruptions, because they are excreted through the skin, and the skin through the pores regulates temperature and hence it is under the control of the central nervous system regulating temperature, and finally because the skin is in close connection, from an early period, with the nervous system. Temperature in the human system is regulated by the three systems of nerves: Thermotaxic, or heat-regulating; thermo-excitory, or heat-increasing; and thermo-inhibitory, or heat-decreasing. If the thermo-inhibitory centres are too much stimulated they may lose their control, hence in certain individuals temperature rises from an antipyretic. The action on the heart may by its influence on the kidney circulation cause kidney and bladder symptoms, even to the extent of albumen in the urine. If the antipyretic is excreted through the kidneys, albuminuria is especially likely to present itself as an untoward result.

Our studies as to the relationship between chemical constitution and physiological action have not yet led us to such a wide and comprehensive grasp of the subject as to enable us to prophesy beforehand what will be the result of any given alteration, hence all new therapeutic agents have to undergo a long and tedious experimental trial before their ultimate value can be determined. Aside of the various antipyretics indicated in the treatment of migraine, the salicylates are often of great benefit, while the bromides are indicated in the second and third forms of this disease. The combination of an analgesic and antipyretic with the more specific remedies, salicylates or quinine respectively, conduce very greatly to the comfort of the patient, if not to a direct cure. Most

of the antipyretics have more or less serious drawbacks or general and frequent use in practice, although the dangerous effects of some of them have been exaggerated.

Like many others, I have had an opportunity to observe the clinical results obtained from the use of phenacetine, antipyrine, acetanilid, etc.; my clinical observations have been followed, watching the progress with examinations of the blood and urine and in some instances chemical and microscopical analysis of the stomach contents in cases which were accompanied by nausea and vomiting. I also kept full record of temperature and sphygmogram tracings of the pulse, respiration, etc., and have become convinced of the merit of phenalgin as a stimulant, antipyretic and analgesic.

Laboratory experimenters claim that phenalgin has no depressant effect upon the circulation, that it decreases the pulse-rate without disturbing the heart, the blood-pressure remains unaffected and the respiration shows no change. My experimentations on animals corroborate the above, and subsequently my clinical charts and sphygmogram tracings again positively confirm the above findings. Headaches are frequently caused by disturbances along the digestive tract, mostly due to fermentative processes caused by the invasion of pathogenic and non-pathogenic bacteria, and in these conditions phenalgin becomes of great service as an intestinal antiseptic; its alkaline properties acting not alone upon certain micro-organisms, but also correcting any hyperacidity.

That most antipyretics, analgesics, etc., have a depressant effect upon the heart is demonstrated by the histological changes of the red blood cells after medication. The erythrocytes appear shrunk and pale, indicating a lack of oxygen-carrying function. After phenalgin medication no such changes occur, indicating that it exerts a stimulating influence upon the red cells. No histological changes occurred in the leucocytes. Phenalgin can be safely combined with almost any other therapeutic agent.—*Medical Mirror.*

THE TREATMENT OF NASAL CATARRH BY THE GENERAL PRACTITIONER.

BY EUGENE C. UNDERWOOD, M.D.,
Surgeon B. & O. S. W. R. R.; Surgeon K. & I. B. Co., etc., Louisville, Ky.

I HAVE long entertained the view that the general medical practitioner neglects to treat his patients for catarrh, and sends them to a specialist, when he could successfully manage these himself. In fact, the treatment of catarrh is very simple and the results which follow correct and systematic treatment are very satisfactory. In

practice, two forms of chronic nasal catarrh are met. These are hypertrophic rhinitis and atrophic rhinitis.

The hypertrophic form is more generally seen, and is characterized by a thick mucous discharge from the nose, great liability to colds, obstruction of one or both nostrils, which forces the patient to breathe through his mouth; nasal intonation of the voice. There is more or less headache, and the sense of smell is lost or impaired. There is dryness of the throat, deafness and other symptoms showing the extension of the disease to neighboring organs. Exostosis of the osseous structures often is seen.

Atrophic rhinitis (ozena) is characterized by a sense of dryness in the nose and throat, a thick, purulent discharge, and the expulsion of discolored crusts and an offensive, putrid odor. The sense of smell is impaired, and the patient is weak and anemic.

The mucous membrane is dry and glazed, but in advanced cases ulceration and necrosis are present.

The treatment consists of applications directly to the diseased area and the administration of such internal remedies as will correct any coexisting disease or morbid state. In some cases where there is occlusion by exostosis the resources of surgery must be invoked.

Let me examine more in detail the treatment of the types of nasal catarrh.

In simple chronic hypertrophic rhinitis the results of treatment will be most flattering. In a case attended with no constitutional disease nothing is necessary beyond having the patient spray the nasal mucous surface with a solution composed of equal parts of water and hydrozone every three hours.

If the case has persisted some time, and the patient has an amount of mucous discharge, I have him take twenty drops of balsam of copaiba four times daily. The hydrozone is not only a disinfectant and germicide, but its curative action on the inflamed mucous membranes is speedy, and is not equalled by any other drug I have ever used. When the patient is anemic I have him take iron, and any other drug is used when it is called for by any associated disease or morbid condition, but the hydrozone spray is used in all cases.

In the atrophic variety we shall have to use the same local application. The hydrozone at once overcomes the offensive odor and takes off the purulent crusts.

These cases must be treated with cod-liver oil, iron, and such other remedies as will bring up the general health.

Here are a few clinical histories:

Mr. R. H. M., age 60, had been a sufferer for two years. There was no exostosis, but when he had a cold he could breathe only through his mouth. He was in good general health, so I had him buy an atomizer and use a spray composed of equal parts of dis-

tilled water and hydrozone. He sprayed the mucous surface of the nose every three hours. On this he made rapid improvement, and in three weeks had no further symptoms.

S. M. T., age 18, had chronic hypertrophic nasal catarrh in which the mucous discharge was very abundant, and this was associated with dryness of the throat and constant desire to hawk and spit. She used the hydrozone and water spray, and took fifteen drops of balsam copaiba three times daily. I had the pleasure of seeing this young woman go along to complete recovery in a period of six weeks.

Mrs. R. J. C., age 49. This lady had atrophic rhinitis, and as soon as she came near you the putrid odor asserted itself. Her general health was lowered. I had her use the hydrozone and water spray and take cod liver oil internally. She spent last winter in Cuba, and has just gotten home greatly improved in general health and her catarrhal disease is better.

She says the spray effectually destroys the disgusting odor, and that scarcely any discharge now appears.

I expect to see this patient entirely well in a few months.—Abstract from *St. Louis Medical and Surgical Journal,* July, 1901.

THE HIPPOCRATIC OATH FOR NURSES.

At the annual commencement of the New York School for Trained Nurses, held in the chapel of the City Hospital on Blackwell's Island, on June 14th, Mrs. Cadwalader Jones, chairman of the advisory board of the school, caused general surprise by submitting to the graduating class of fifty-two young women a modified form of the "Oath of Hippocrates," to which they readily subscribed.

Mrs. Jones, in presenting the diplomas, spoke as follows:

"Until very recently women have had so little part in any acual competition with men that they have been exempt from many rules by which men are governed, but the old order is changed, and with a share of men's honors and emoluments we must also be prepared to accept their responsibilities.

"The trained nurse necessarily occupies in the household a position of confidence compared to which even the physician is secondary. She is there at all times, while his visits are occasional; by day and night all that goes wrong in the sick-room and outside it must always inevitably be known to her.

"It is to the credit of your profession that, as far as I know, the knowledge thus gained has never been seriously abused, but there is a feeling, not general, perhaps, but widespread, that nurses gossip more or less in one house about what has happened in another.

"As doubtless you all know, a physician who graduates from a reputable medical school takes upon his graduation what is known as the "Oath of Hippocrates." That great physician lived more than 2,000 years ago, and scholars think that this oath may have been old even in his day. The gods by whom the ancients swore have been discarded, but duty and honor remain immortal.

"I will ask you to listen to a version of the Hippocratic oath, modified to suit your profession, and when you have heard it, to accept its obligations and to observe them faithfully.

"You do solemnly swear, each by whatever she holds most sacred:

"That you will be loyal to the physicians under whom you serve, as a good soldier is loyal to his officers.

"That you will be just and generous to all worthy members of your profession, aiding them when it will be in your power to do so.

"That you will live your lives and lead your profession in uprightness and honor.

"That into whatsoever house you shall enter it shall be for the good of the sick to the utmost of your power, and that you will hold yourselves aloof from all temptation.

"That whatsoever you shall see or hear of the lives of men and women, whether they be your patients or members of their households, you will keep inviolably secret, whether you are in other households or among your own friends.

"If you accept these obligations let each one bow the head in sign of acquiescence.

"And now, if you shall be true to your word, may prosperity and good repute be ever yours; the opposite if you shall prove yourselves foresworn."

Mrs. Cadwalader Jones' modified version of the Hippocratic oath caused a buzz of favorable comment among the physicians and others present.

GOOD, BUT HARD TO PASS.

We heard the other day of a North Carolina negro who swallowed a silver dollar, and on appealing to his medical adviser was informed that the juices of the stomach would dissolve it without injury to him. He was troubled with pain in his stomach whenever it became empty, so that he had to eat frequently. This continued for about two weeks, when it was "passed" in his stool. The dollar was not even tarnished, a singular fact when it is remembered that H_2S acts so readily upon silver, and that this gas is generally abundant in the intestines. The doctor who

attended him thinks it was not a counterfeit, and that it is the only case coming within his observation where a nigger couldn't get a dollar changed in two weeks.

We see another fact in this case worthy of attention, as there is no doubt that the accident actually happened as related, and that is that a very large body may pass through the alimentary canal. As to the pains from which he is said to have suffered, there cannot be anything strange in that; we have seen a good many people who suffered when their stomachs were empty.

Another feature of this strange case commends it to our careful consideration. When the man had swallowed the dollar, and thus loaded his stomach, his pocket was empty; a condition which has been known to produce the most profound mental agony, and finally to end with an "aching void" in the hypochondrium.

A little further reflection leads us to remark that indirectly many a good dollar goes into the stomach of the human animal, and that in many cases the pain resulting from their ingestion comes long before the stomach has become empty, as in the case herein described.

Another fact worthy of remark in this connection is that the amount was too small to operate for, and so no gastrotomy was done, but nature allowed to take its course, showing the greatest conservatism on the part of the physician. Had it been a double eagle, it is not to be supposed that nature would have had a thing to do with it.—Editorial, in *St. Louis Clinique.*

Dr. Jessop's Bill Before the Ontario Legislature.—Several important bills were introduced in the Legislature recently. One by Dr. Jessop (Lincoln) proposes to amend the Ontario Medical Act by changing the constitution of the Medical Council, in accordance with the ideas of Dr. Sangster and other medical men, who have protested against the powers now exercised by that body. As is known to the profession at present the Council consists of thirty members, five representing the homeopaths, eight appointed by the four medical colleges which are connected with Toronto University, Trinity University, Queen's University, and the Western University of London. The remaining seventeen are elected by the physicians of the Province. According to Dr. Jessop, there are only about forty homeopaths in Ontario, while there are 250 general practitioners for each representative they have on the Council. He proposes, accordingly, to abolish the provision for five homeopathic representatives, and also the college representation, and to substitute election of the entire thirty members by the profession.

The Canadian Journal of Medicine and Surgery

J. J. CASSIDY, M.D.,
EDITOR,
69 BLOOR STREET EAST, TORONTO.

Surgery—BRUCE L. RIORDAN, M.D., C.M., McGill University; M.D. University of Toronto; Surgeon Toronto General Hospital; Surgeon Grand Trunk R.R.; Consulting Surgeon Toronto Home for Incurables; Pension Examiner United States Government; and F. N. G. STARR, M.B., Toronto, Associate Professor of Clinical Surgery, Lecturer and Demonstrator in Anatomy, Toronto University; Surgeon to the Out-Door Department Toronto General Hospital and Hospital for Sick Children.

Clinical Surgery—ALEX. PRIMROSE, M.B., C.M. Edinburgh University; Professor of Anatomy and Director of the Anatomical Department, Toronto University; Associate Professor of Clinical Surgery, Toronto University; Secretary Medical Faculty, Toronto University.

Orthopedic Surgery—B. E. MCKENZIE, B.A., M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Surgeon to the Out-Patient Department, Toronto General Hospital; Assistant Professor of Clinical Surgery, Ontario Medical College for Women; Member of the American Orthopedic Association; and H. P. H. GALLOWAY, M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Orthopedic Surgeon, Toronto Western Hospital; Member of the American Orthopedic Association.

Oral Surgery—E. H. ADAMS, M.D., D.D.S., Toronto.

Surgical Pathology—T. H. MANLEY, M.D., New York, Visiting Surgeon to Harlem Hospital, Professor of Surgery, New York School of Clinical Medicine, New York, etc., etc.

Gynecology and Obstetrics—GEO. T. MCKEOUGH, M.D., M.R.C.S. Eng., Chatham, Ont.; and J. H. LOWE, M.D., Newmarket, Ont.

Medical Jurisprudence and Toxicology—ARTHUR JUKES JOHNSON, M.B., M.R.C.S. Eng.; Coroner County of York; Surgeon Toronto Railway Co., Toronto; W. A. YOUNG, M.D., L.R.C.P. Lond.; Coroner County of York, Toronto.

W. A. YOUNG, M.D., L.R.C.P. LOND.,
GENERAL MANAGER,
145 COLLEGE STREET, TORONTO.

Pharmacology and Therapeutics—A. J. HARRINGTON, M.D., M.R.C.S. Eng., Toronto.

Medicine—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon, Toronto General Hospital; and W. J. WILSON, M.D., Toronto, Physician Toronto Western Hospital.

Clinical Medicine—ALEXANDER MCPHEDRAN, M.D., Professor of Medicine and Clinical Medicine Toronto University; Physician Toronto General Hospital, St. Michael's Hospital, and Victoria Hospital for Sick Children.

Mental Diseases—EZRA H. STAFFORD, M.D., Toronto, Resident Physician Toronto Asylum for the Insane.

Public Health and Hygiene—J. J. CASSIDY, M.D., Toronto Member Ontario Provincial Board of Health; Consulting Surgeon Toronto General Hospital; and E. H. ADAMS, M.D., Toronto.

Physiology—A. B. EADIE, M.D., Toronto, Professor of Physiology Woman's Medical College, Toronto.

Pediatrics—AUGUSTA STOWE GULLEN, M.D., Toronto, Professor of Diseases of Children Woman's Medical College, Toronto.

Pathology—W. H. PEPLER, M.D., C.M., Trinity University; Pathologist Hospital for Sick Children, Toronto; Demonstrator of Pathology Trinity Medical College; Physician to Outdoor Department Toronto General Hospital; Surgeon Canadian Pacific R.R., Toronto; and J. J. MACKENZIE, B.A., M.B., Professor of Pathology and Bacteriology, Toronto University Medical Faculty.

Ophthalmology and Otology—J. M. MACCALLUM, M.D., Toronto, Assistant Physician Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

Laryngology and Rhinology—J. D. THOREURN, M.D., Toronto, Laryngologist and Rhinologist, Toronto General Hospital.

Address all Communications, Correspondence, Books, Matter Regarding Advertising, and make all Cheques, Drafts and Post-office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College St., Toronto, Canada.

Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the fifteenth of the month previous to publication.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month.

VOL. XI. TORONTO, FEBRUARY, 1902. NO. 2.

Editorials.

CAUSES OF IDIOCY IN CHILDREN.

WE learn through an article in the *British Medical Journal*, that Dr. Tredgold's work at the Claybury laboratory in England, shows the potent influence of alcoholism, consumption and various neuroses in the parents in provoking idiocy in their offspring. Dr. Bourneville, from statistics gathered at the Bicêtre hospital for feeble-minded and epileptic children at Paris, observes in *Le Progrès Médical* that out of a total of 2,700 cases of boys affected with chronic diseases of the nervous system, he has proved the existence of syphilis in the

parents in only twenty cases, less than 1 per cent. Out of a total of 482 girls affected similarly there were only two cases of hereditary syphilis. Dr. Bourneville offers this explanation of the rarity of syphilis as a cause of idiocy. The effects of syphilis in the father or mother are revealed by miscarriages and then by the birth of infants before term. Infants born at term become athreptic and die during the first months or the first year of life. When, later on, syphilis becomes less virulent, either spontaneously or owing to treatment, the infants survive. They do not, however, come under the observation of a specialist in mental disease, unless they should acquire idiocy or a lack of intellectual development, as the outcome of convulsions, meningitis or contagious diseases. These considerations, in Dr. Bourneville's opinion, explain the very small number of cases of idiocy traceable to syphilis in the parents.

The injurious effects of intemperate indulgence in alcohol by parents, as a cause of idiocy in their offspring, is strongly brought out in Dr. Bourneville's statistics. Thus 36 per cent. of the fathers were intemperate; 3.1 per cent. of the mothers; 1.5 per cent. of both fathers and mothers—a total of 40.6 per cent.; 41 per cent. were of sober habits; of the remainder no accurate details on this point were obtained.

Unhealthy occupations followed by the parents appeared as a prominent cause of idiocy, epilepsy, etc., in their offspring. In the first rank, as causative influences are trades, in which the parents work at white lead, mercury, phosphorus, copper, etc. Dr. Bourneville's statistics show that eighty-seven families of these classes furnished 420 children, nearly five children per family.

Of these 420 children, 220 died, a mortality of 52 per cent.; 200 are living, a vitality of 48 per cent. If we add to the 220 who died 87 affected with idiocy, epilepsy, etc., we find that 73 per cent. of these children lost their lives or became seriously diseased owing to the unhealthy trades at which their parents worked.

The trades followed by the parents of the 87 idiots are as follows: workers in white lead, as house painters, 36; decorators, 4; letter painter, 1; carriage painters, 3; car painter, 1; painter of iron furniture, 1; painter on enamel, 1; painter on porcelain, 1; cooper in a white lead factory, 1; printers on wall-paper, 2; worker in phosphorus, maker of phosphorus matches, 1. The influence of mercury appeared as follows: hatters, 5; cloth-fullers, 4; looking-glass makers, 4. That of copper in the following: gilders, 4; moulders in copper, 6. Unhealthy dusts as follows: turners in

copper, 5; tobacco hands, 2; ornamental feather-makers, 3. The influence of turpentine was shown in 1 mother-of-pearl worker, and 1 japan varnisher. Total, 87.

The diseases of which the children died are classified as follows: miscarriages, 30; still-birth, 23; convulsions, 43; meningitis, 34 diarrhea, 12; athrepsia, 4; pulmonary tuberculosis, 13; broncho-pneumonia, 12; croup, 6; small-pox, 4; diphtheria, 3; whooping-cough, 4; measles, 3; cholerine, 2; accident, 1; different unknown diseases, 26. Total, 220. Among the parents of the children who died, one mother and two fathers were syphilitic; but in 87 families 58 fathers or 66.66 per cent. drank to excess.

Thus from the observations of Dr. Bourneville, alcoholic excess and the influence of unhealthy trades on the parents are the chief causes of idiocy among French children. J. J. C.

A MODIFIED TYPE OF VARIOLA.

In April, 1901, we published some observations on a modified type of small-pox, which broke out in the United States during the autumn of 1898, reached Canada in 1899, prevailed in this country in 1900 and 1901, and continues to prevail. We showed that the mildness of the disease was not due to the mitigating influence of vaccination, because marks indicating previous successful vaccination were absent in individuals exhibiting this very mild type of small-pox. It also appeared, that the resultant mortality was low. Thus from the beginning of the outbreak at Sault Ste. Marie, Ont., in December, 1900, up to March 8th, 1901, there were 131 cases and two deaths from small-pox in Ontario, a mortality of 1.5 per cent. We now know that there were during 1901, 1,860 cases of this usually deadly disease in Ontario, the majority of them being observed in Algoma and Nipissing (northern districts), with twelve deaths, a mortality of less than two-thirds of one per cent. As we said in April, 1901, the type of variola now prevalent in Ontario has not been made virulent by cold weather. Another factor worthy of consideration is, that this benignancy of type is not due to the use of antidotes or antiseptics, as the hyposulphites of sodium or calcium. Few patients seek medical advice during the period of incubation or even know that they have imbibed the contagion until its evolution is complete and actual febrile symptoms have begun. Neither can its benignancy be due to a

general high status of health among the 1,860 Ontario cases, for some of the patients must have been strumous, others tuberculous, and others again weakened by illness, overwork or bad hygiene. Another consideration in favor of this theory of the benignancy of the present epidemic is, that when virulent small-pox does attack a number of people, the robust catch the contagium and die of it, as well as the weaklings, a fact which would go to show that type in small-pox does not depend on the strength or weakness of the organism which it attacks.

It would appear from a report printed by the State Board of Health of Pennsylvania, that the present epidemic was introduced into the United States in 1898 by American soldiers returning from the Cuban war. This disease spread to the different Provinces of Canada, and still continues to present the characteristic mildness of the subtropical country from which it was imported. It is said that the small-pox contagium of hot countries such as Mexico and the West Indies, is milder than the same contagium grown only in colder countries, and it has also been shown that the contagium of small-pox is rapidly deprived of its power by great artificial or solar heat. The same is true also of vaccine. Fatal results have, however, been occasionally observed during the present epidemic in Canada. For instance, in March, 1901, a physician, of about forty years of age, who was said to be of a delicate constitution, died in ten days of small-pox at Toronto. In December, 1901, a shantyman died of small-pox, complicated with edema of the glottis, at a camp in Northern Ontario. At Mechanicsville, near Ottawa, a poor woman, a mother of a family, died of small-pox after ten days' illness. At Hull, near Ottawa there occurred in one family, three deaths from small-pox. These and a few similar instances do not, however, owing to their exceptional nature, disprove what has been stated about the benignancy of the epidemic. They simply indicate peculiarities in cases, not severity of type.

In New York City there was a rather high mortality from small pox during 1901. Thus out of 587 cases occurring from June 23rd to December 7th, 1901, in that city, there were 164 deaths, a mortality of about 28 per cent. Boston reported in five months 400 cases and 47 deaths, a mortality of 11.75 per cent.; New Orleans, 70 cases and 6 deaths, a mortality of 8.5 per cent.; Philadelphia in three months 1,003 cases and 142 deaths, a mortality of 14.15 per cent. These higher mortalities,

particularly that of New York City, where the disease prevailed during the summer of 1901, would seem to show that some of the cases occurring in American ports may not have been traceable to the contagium now prevalent in Canada and Northern States, such as Minnesota and Wisconsin. A virulent type of small-pox, such as that prevalent during 1900 in Glasgow, or in Naples, Paris or London during 1901, may have passed through American quarantine stations, and have been thus introduced into the ports of the New World, that of New York City being, of course, the most frequented.

Compared with virulent small-pox the present Canadian variety seems trivial, so much so that many are emboldened to act as though mild small-pox would cause them no greater inconvenience than vaccination. The fatal flaw in this reasoning is that one cannot be sure that one may not be numbered among the mortality, even though the type is mild. Then again vaccination is a readier way out of the difficulty; for one cannot be sure that only a mild type of variola may continue to be disseminated through the highways and by-ways of this country. A specimen of the virulent variety may any day be landed on our shores, so that the people would do well to seek refuge in the true anti-variola harbor of refuge—an early and successful vaccination. J. J. C.

ANTI-ETHYLENE IN THE TREATMENT OF INEBRIETY.

In March, 1901, we alluded to the employment of anti-ethylene in the treatment of inebriety, this new agent having been brought to the notice of the profession by Drs. Triboulet and Mathieu, of Paris. They first produced in a horse the habit of willingly drinking alcohol. The blood of this animal subsequently furnished a serum, which, after injection into animals that had previously acquired a habit, and even a taste, for alcohol, produced in them such a disgust for it that they preferred to abstain from food or drink, rather than continue to take alcohol.

The experimenters have given to the unknown, undefined substance contained in the horse serum collected under these conditions the name of anti-ethylene. Clinical trials, made on drunkards or persons given to the general use of alcohol, have confirmed the experimental results obtained in animals. Dr. Marcello Ballo, in a

communication to the Royal Academy of Medicine of Madrid, June 15th, 1901, reports a case, the first treated in Spain, by the use of anti-ethylene. The patient, a tall, strong man, thirty-three years of age, had indulged in excess of wine and other alcoholic beverages from his seventh year; was of a violent, excitable temperament, ate and digested well except on the day after a spree, but suffered from obstinate constipation: liver and spleen slightly hypertrophied; heart and lungs sound. The urine was normal as to quantity, showing slight albuminuria. The nervous phenomena were very well marked; fibrillary tremors of the face and tongue; on beginning to walk subsultus tendinum was quite noticeable. The memory was weakened, sensibility normal. The patient complained of pricking feelings in the legs, of rotatory and oscillatory vertigo and diplopia when drinking heavily. He slept lightly and had frightful dreams. The diagnosis having been made, and the patient having consented to be treated, injections of 5 c.c. of anti-ethylene were administered every third day.

After the first three injections the attacks of vertigo became more frequent and persistent, and the creeping sensation became general; these phenomena disappeared six hours after the fifth injection, and did not return.

The injections were continued for about sixty days, until a total of 100 cubic centimetres had been given, which, in Dr. Ballo's opinion, should be sufficient to obtain a cure.

About the time of the seventh injection the patient began to remark in himself a certain disgust for alcohol, especially in the form of vermouth, absinthe, cognac, etc. Wine did not please him as much as formerly, and he drank a smaller quantity of it, because he soon had all he wanted. As the number of injections increased, this repugnance for alcohol became more strongly marked; at the fifteenth injection it was absolute.

Larger doses, 10, 15, 20 c.c. of anti-ethylene might have been used with impunity, but the dose employed, 5 c.c., soon produced manifest signs of improvement, and was considered sufficient.

The patient still continues to feel a positive aversion to alcohol. His digestion and nervous disorders have disappeared; the liver and spleen have returned to normal dimensions, the urine is normal in quality and quantity, appetite and digestion are good, and he may be considered cured.

Is he radically cured, asks Dr. Ballo? To whom one may reply in the language of old Spain, *Quien sabe?*

The change produced on the patient by anti-ethylene is remarkable; but if the patient will stay cured the change will be wonderful. J. J. C.

OUR 1901 STAFF DINNER.

The regular annual dinner of the staff of the Canadian Journal of Medicine and Surgery took place in McConkey's grill room on Thursday evening, January 2nd. The gathering was a most enjoyable affair, and all present entered into the spirit of the occasion with a heartiness pleasurable to behold. A quiet function of this character, taking place once a year, engenders a *bon ami* in all who are participants, and is an occasion where the exchange of courtesies, as well as ideas, can result only in good and increased prosperity as far as the journal is concerned. Beside almost all the members of the staff, we had with us our dear old friend, Dr. Jas. H. Richardson; Dr. Chas. O'Reilly, the well-known after-dinner speaker; Rev. Dr. Briggs, who was decidedly "in the spirit" and made a capital speech in replying to the toast to "The other learned professions;" Dr. P. H. Bryce, who waxed quite eloquent; Crown Attorney Curry, who referred with fervor to our friends the osteopaths, viteopaths, etc., and the kind of legislation we will have to get to make them keep their place; Messrs. R. L. Gibson, H. W. Brick, and W. H. Chandler. We were exceedingly sorry that Dr. G. T. McKeough, of Chatham; Dr. H. T. Manley, of New York; Dr. A. J. Johnson, Dr. Jas. M. McCallum, who was then recuperating from a rheumatic attack at Welland Sanitarium; Dr. W. H. Pepler, who had to stay at home to nurse, not the baby, but a sore arm; Dr. Charles Sheard, who had intimated his intention, but was detained through official duties; Dr. Ezra Hurlburt Stafford, that poetic soul and non-believer in Spiritualistic seances; Dr. Bruce Riordan, Dr. J. J. MacKenzie and others, could not join the happy throng.

We think that we are correct in saying that, even in respect to the annual dinner and meeting of the clans, which our journal was the first in Toronto to propose and adopt, the Canadian Journal of Medicine and Surgery leads the van, and in this small, but we think effective way, wishes to spread among members of our profession a still greater spirit of *cameraderie* than may have existed in the past. Our motto is still, and shall be the same grand old cry, "United we Stand." W. A. Y.

EDITORIAL NOTES.

Lumbar Puncture in Cerebro-Spinal Diseases.—Lumbar puncture is recognized as a valuable means of diagnosis and treatment in the cerebro-spinal diseases of children (*Archives of Pediatrics*). In traumatic injury to the brain this procedure is said to be a useful *therapeutic* measure. Dr. Poirier reported to the Surgical Society of Paris (December 4th, 1901), a case in which fracture of the skull was feared, and in which the meningeal symptoms presented by the patient were supposed to be due to hypertension of the cerebro-spinal fluid. Lumbar puncture having been performed, from 30 to 40 grams of cherry-red cerebro-spinal fluid were allowed to escape. The good effects of this treatment were almost immediately observed. Vomiting ceased, and coma gradually disappeared, as did also the violent headache. On the following day the usual signs of a fracture of the skull appeared: ecchymosis of the nucha, sub-conjunctival ecchymosis, paralysis of the right rectus internus, etc. Eleven days after admission the patient left the hospital apparently in perfect health. As to the DIAGNOSTIC value of a rose-colored or blood-stained cerebro-spinal fluid, evacuated by lumbar puncture, in suspected cases of fracture of the skull, different opinions were expressed by some of the surgeons present, when Dr. Poirier's paper was read. Dr. Rochard mentioned a case, in which the presence of this red-colored fluid indicated a contusion of the brain. Dr. Tuffier had observed it after fracture of the skull, and also after an apoplectic stroke. Different views were likewise expressed as to the reason why the intense headache and vomiting present in grave injuries of the skull were relieved by lumbar puncture. Dr. Guinard attributed these symptoms to the presence in the cerebro-spinal fluid of some foreign body—air, blood, salt or water. Dr. Kirmisson opined that an excessive hypertension of the cerebro-spinal fluid was a sufficient cause to provoke these symptoms. Dr. Hartmann thought that any mechanical irritation of the meninges would suffice to produce them, without the presence of a foreign liquid; and finally, Dr. Reclus stated that some authors ascribed the intense headache, which sometimes occurred after lumbar puncture, to a loss of cerebro-spinal fluid, instead of a hypertension of that fluid.

Oxalic Acid in the Organs of Men and Animals and in Certain Vegetables.—In the October number of *La Clinica Medica Italiana*, Milan, appears a paper by Dr. A. Cipolina, of the Chemical Laboratory of the Pathological Institute at Berlin, containing original studies about the amounts of oxalic acid present in human and animal organs, and also in certain vegetables. As to the amount of oxalic acid in vegetables he observes that, if considered in an ascending scale, those which he examined should be read in the following order, viz.: carrot, mushroom, cauliflower, water-melon, kidney-beans, turnip, sorrel, spinach. He quotes Abeles as stating that he had found oxalic acid in spinach, sorrel and asparagus in considerable quantities, and only traces of it in tomato and carrot. He quotes Pierallini as to the amount of oxalic acid in tea. The latter took ten grams of tea leaves dried in the air, and boiled five minutes in 500 c.c. of water; filtered, and after concentrating the same to 200 c.c., looked for oxalic acid. He found gram 0.0315. Very interesting tables are given showing the amounts of oxalic acid discoverable in animal organs and also in human organs. His general conclusions are as follows: (1) Human and animal organs contain small quantities of oxalic acid, the spleen in the largest quantity (an exception being made in favor of the thymus gland, which, in the case of adults, need not be taken into consideration). (2) The amount of oxalic acid contained in the organs is small, but in general it amounts to about ten times the maximum quantity eliminated normally in twenty-four hours by the urine. (3) The spleen, sometimes perhaps the liver, and the muscles have the property of forming, by oxidation, oxalic acid from uric acid. (4) The amount of oxalic acid present in any nutritive substance is of great importance, when considering the nutrition of animals suffering from oxaluria or oxalic acid calculi.

Augmentation of the Red Blood Cells at Great Altitudes.—Several observers have recorded a considerable increase in the number of the red blood cells in individuals who had reached great altitudes. Thus, Viault recorded that at an altitude of 4,000 metres on the Cordilleras, he had found 8,000,000 red corpuscles per cubic millimetre of blood. In November, 1901, Dr. Gaule, Paris, made observations to ascertain if a similar phenomenon could be produced in an individual floating in a balloon, who had attained a great altitude in a short space of time, and without any expenditure of muscular force. Experiments made on two different

occasions, at altitudes of 4,200 to 4,700 metres, showed over 8,000,000 red blood cells per cubic millimetre of blood. Besides, Dr. Gaule, when at an elevation in a balloon of over 4,000 metres, having taken the precaution to make preparations of blood, according to Ehrlich's method, demonstrated, after coloration with eosin and hematoxylin, the presence of a great number of red blood cells, each containing a nucleus stained blue by hematoxylin. Frequently these nuclei were in a state of segmentation, and groups of three or four corpuscles were observed, which looked as if a subdivision of the cells had taken place, particulars which are not observed when the blood of the same individual is examined, under similar conditions, before ascending in a balloon. Dr. Gaule concluded that when an individual reaches a great altitude, there is a real formation of red corpuscles in the blood, and that they are formed very rapidly.

Sewage Disposal Works are not required at Toronto.—There is no sanitary need of sewage disposal works at Toronto. The city water supply is fairly pure, as appears from the typhoid fever rate of 1901, viz., 119 cases, with twenty-three deaths, a mortality of 19.32 per cent., certainly a small typhoid sickness-rate for a city of 208,000 population. Toronto's water supply, which is drawn from Lake Ontario, is protected from the sewage-laden waters of Toronto bay by an island of sand, which lies opposite the city and by a long shoal, which extends into the lake from the south-west extremity of the island. If the water supply should at any time become notably polluted, the cheapest and best method of restoring it to a wholesome condition would be to place Hyatt filters on the Esplanade near the Water Works, through which the water would be pumped before distribution. At St. Thomas, Ontario, the impure water of Kettle Creek is made quite wholesome after passage through Hyatt filters. Many similar examples of water purification in American cities could be given if necessary. Apart from the natural wish of citizens who own island lots, to see the waters of Toronto Bay restored to their primitive clearness, or the desire of those interested in navigation to deepen the city harbor, there is no need of a trunk sewer and sewage-disposal works.

Respiration at Great Altitudes.—On November 21st, 1901, Drs. Tissot and Hallion ascended from Paris in the balloon Eros, in order to make some physiological observations on the physical and

chemical phenomena of respiration. Trials were very carefully made at 1,300, 2,600 and 4,500 metres by Dr. Tissot, and at 1,700 and 3,500 metres by Dr. Hallion. Both observers noted that at these different altitudes there was no change in the chemical phenomena of respiration. On the other hand, the utilization of the respired air was considerably modified. If the quantity of air introduced into the lungs is less, which depends on the fact that the number of inspirations is not sensibly increased, it seems that, by compensation, an individual at a great altitude utilizes the air he breathes in a better and more complete manner than he would at a lower elevation above the earth's surface.

Poisoning by Monoxide of Carbon.—Mr. Grehand of Paris, has made some observations to determine the best method of procuring the elimination of monoxide of carbon from the blood of individuals poisoned by this gas. He shows that during the twenty minutes immediately following intoxication with this gas, no benefit is obtained by introducing fresh air into the lungs. In order to displace monoxide of carbon from the combination which it forms with hemoglobin, the inhalation of pure oxygen is indispensable. This observation will have a practical application in the treatment of poisoning by illuminating gas, the principal lethal agent of which is monoxide of carbon. J. J. C.

ITEMS OF INTEREST.

Off for South Africa.—Amid the cheering of several hundred medical students and members of the local Army Medical Corps, the Montreal express pulled out of the Union Station on the evening of January 9th, bearing Toronto's recruits for the Canadian Field Hospital Corps for service in South Africa. Among the prominent officers gathered at the station to see the men off were Commander Law, Col. Otter, Col. Neilson, Major Fotheringham, Capt. Shanly, Capt. Clark, Lieut. Roberts, John King, K.C., and Dr. Adam Wright. The men who left with the Hospital Corps were: Dr. R. F. Parry, Jas. Henderson, George F. McKenzie, D. McD. King, Charles Springford, E. Wickson, James Biggar, 7th Field Hospital; W. B. Law, 7th Field Hospital; W. Dunk, No. 4 Bearer Co.; Ethelbert Latta, medical student. Drivers—S. J. A. Williams, J. Milne, 48th Highlanders; G. Chapman, Harry Brennan, and Hugh F. Brown. Private Parry was ap-

pointed provisional corporal by Col. Otter, an appointment which was duly confirmed at Halifax by Surgeon-Lieut.-Col. Worthington. Corporal Parry resigned his position of House Surgeon to Grace Hospital to practise in Dunnville. He furnished a surgery there but was unfortunate to be burnt out a day or two before he left for South Africa, and lost everything. He immediately came back to Toronto and joined the Field Hospital. In spite of all reports to the contrary, the Field Hospital Corps sailed from Halifax with the second section of the Canadian Mounted Rifles, leaving the point of embarkation on January 22nd on the *Victorian.* It was the lady nurses to whom Col. Neilson referred when he said that accommodation could not be found for them on the transports with the Canadian troops. Dr. R. F. Parry is a younger brother of Dr. W. T. Parry of Spadina Avenue, Toronto.

New York School of Clinical Medicine.—The New York School of Clinical Medicine, 328 West Forty-second Street, will begin the winter series of Tuesday Evening Lectures on January 7th, 1902. These Lectures are independent from the regular course of instruction. A cordial invitation is extended to members of the medical profession. The following are the subjects of the several Lectures, with the names of the speakers: On January 7th—Operative Treatment of Traumatic and Pathological Lesions of the Joints—Dr. Robert H. Cowan. January 14th—The Chemico-Microscopical Examination of the Stomach Contents for the Purposes of Diagnosis—Dr. Heinrich Stern. January 21st—Inebriety and its Pathology. 22nd—Treatment and Cure. 23rd—Questions of Legal Responsibility—Dr. Thomas D. Crothers. January 28th—The Action and Application of Periodic Induced Currents of Electricity in Diseases of the Female Pelvic Organs—Dr. Augustin H. Goelet. February 4th—Diagnosis and Pathological Characters of Tumor Formations in the Right Lateral Half of the Abdominal Cavity—Dr. Thos. H. Manley. February 11th—Practical Points on Pessaries—Dr. A. Ernest Gallant. February 18th—Headaches—Dr. J. Albert Meek. February 25th—Mechanical and Surgical Treatment of Hernia—Dr. Carl E. Pfister. March 4th—Tuberculosis of the Larynx—Dr. Max J. Schwerd.

Treatment of Nervous Diseases.—Dr. Campbell Meyers has recently completed some changes in the treatment room of his

Private Hospital for Diseases of the Nervous System at Deer Park, by which hydrotherapy, so essential in the treatment of these diseases, can be fully utilized. A new shower and needle bath, with liver spray and a Scotch douche, have been added. The temperature and pressure of the water are carefully regulated by special appliances, so that hydrotherapy in all its details may be scientifically applied. The needle bath is arranged with a series of roses, so that its value in treatment is much greater than the ring needle bath in general use. A second clock, to measure the exact duration of the treatment, is a useful and important feature. Dr. Meyers has also a laboratory equipped with the latest appliances for clinical research. The dispensary is supplied with the purest drugs used in neuriatry, and is in the charge of an experienced pharmacist. Dr. Meyers spent four years in the chief medical centres of Europe studying these diseases. An assistant physician devotes his attention to analytical and electrical work, and the nursing is done by a large staff of specially trained nurses. These, together with the other facilities for treatment which this hospital, with its surroundings, offers, make it one of the best medical hospitals in the Dominion.

The New Woman's Hospital, Toronto.—Despite our good advice of a few months ago, the medical women are determined to found a separate Woman's Hospital, solely for the treatment of women, and the medical staff is to be of the same gender. A heavenly dwelling where mere man will have no place. "Angels, ever bright and fair, take, oh, take me to your care." Money has been subscribed for building purposes, and a meeting held at the residence of Mrs. George A. Cox, and soon, in spite of our strong views against the multiplying of city hospitals, and our firm conviction that in union lies strength, we doctor men are cavaliers enough to stand uncovered a moment and wish success to the new enterprise. No flowers.

Another Addition to Our Staff.—It is a source of great pleasure to us to announce that our staff has had added to it the name of Dr. Arthur Jukes Johnson, who will from this date have senior charge of the Department of Medical Jurisprudence and Toxicology. Dr. Johnson is too well and favorably known to require even an introduction to the profession. He is the oldest (appointed) coroner in Toronto, and is known all over Canada as

a specialist in medico-legal work. Our readers can therefore look forward with interest to contributions from time to time to our department of medical jurisprudence from the pen of Dr. Johnson.

The Secret of a Long Life.—Sir James Grant, of Ottawa, delivered a lecture upon "The Secret of a Long Life," under the auspices of the Women's Residence Association of Victoria College, on the evening of January 14th. The Doctor, during his very interesting address, advocated total abstinence from the use of intoxicating liquors, and made a strong plea for prohibition, not by prohibitory law, but that which is the result of education; enlightenment upon the harmful nature and health-destroying agency of the use of intoxicating liquor.

Accident to Dr. W. T. Stuart.—Dr. W. T. Stuart, of Spadina Avenue, met with a painful accident at Trinity Medical College a few weeks ago, which might have caused the loss of his eyesight. The doctor was lecturing to his class in practical chemistry, one of the students was mixing a preparation of caustic potash; the potash exploded, blowing up into the doctor's face. Fortunately under careful treatment Dr. Stuart has been steadily recovering.

Off to the Bermudas.—Dr. A. J. G. Macdougall, house surgeon at the Toronto General Hospital, left for Hamilton, Bermuda, two weeks ago, he having received the appointment of civil medical attache at the British Residency in charge of Boer prisoners. Dr. Macdougall is a young man, and his appointment is regarded by his friends as a high mark of recognition of his ability in his profession.

Recruits for Hospital.—Dr. G. C. Ferrier, a graduate of Queen's Medical College, and Daniel Eby, a South African veteran, left Kingston on January 8th for Halifax, to join the Field Hospital Corps.

Canadian Nurses Appreciated.—The Militia Department sent five Canadian nurses to South Africa by way of England at the order of the Home Authorities.

PERSONALS

Dr. W. A. Young spent the 21st, 22nd, and 23rd of January in Chicago.

Dr. J. J. MacKenzie, Professor of Pathology, Toronto University, spent, with Mrs. MacKenzie, the Christmas holidays with friends out of town.

Lieut. Domville, of Woodstock, N.B., declined the position of Assistant Veterinary to the Montreal Rifles, and Dr. James, of Ottawa, was appointed to the vacancy.

Dr. John Caven has taken up practice again, and has opened an office and laboratory in the house of his brother, Dr. W. P. Caven, at the corner of Gerrard and Church Streets.

Dr. J. A. Roberts, of this city, who left with the Field Hospital Corps on January 9th for active service in South Africa, was tendered a banquet by several of his friends a day or two before leaving.

The large collection of microscope slides, owned by the late Dr. L. M. Sweetnam, has been purchased by Trinity Medical College. The Doctor's splendid library has been purchased by Dr. Howard Kelly, and presented by him to the Toronto Medical Library.

The medical profession of Toronto, and more especially those perhaps connected with the staff of Toronto General Hospital, sincerely regret the demise last month of Mr. Walter S. Lee, who for so long had occupied the position of President of the Board of Directors of Toronto General Hospital.

Dr. Newton Albert Powell entertained a goodly number of the city profession on January 17th at his home, cor. McCaul and College Streets. The occasion was a reception to our distinguished confrere, Dr. Drummond, of Montreal, author of "Johnny Corteau." Dr. Powell's hospitality was thoroughly enjoyed by all.

We beg to call attention to the advertisement, on page xxviii. of this issue regarding the sale of the house of the late Dr. Lesslie M. Sweetnam, cor. Church and Shuter Streets. This is one of the greatest snaps in the city, the house being the best in Toronto for the purposes of a practising physician, and at the same time handsome and rich in appearance, and is in a neighborhood where a big practice could be worked up with very little effort.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

THE TRADE'S UNION AND THE MEDICAL PROFESSION.

To the Editor of The Canadian Journal of Medicine and Surgery:

Dear Sir,—Attention is drawn to the above subject by a communication in our esteemed contemporary, *American Medicine,* from the able pen of Dr. M. V. Ball. The Doctor goes on to show that the ethics of all medical combinations, societies, etc., are based on the principles of trades' unionism. He says: "The physician, by his society or organization, hopes to secure proper qualifications for all such as intend to practise medicine; a minimum rate of compensation for his service, and the proper recognition of his organization. He cannot easily obtain the latter, but he attempts it by State regulation, and licensing, and if the workingman could have his trade protected by a State license he would be glad to forego the trial of a strike, for there would be no need of it in order to secure recognition of his union. If it is said, that a physician may or may not belong to a medical organization and still be in good standing, it can also be said that three-fifths of the workingmen are unorganized and yet work with others who are union men. When union men are on strike for a principle, they have no words strong enough for the men who will take their places. Were the physicians employed in a certain hospital to resign, because of an attempt on the part of the managers to violate some sound ethical principle, or because of a refusal to employ them as they belonged to a medical society, they would be as much inclined to shout 'scab' at the doctors who usurped their positions as are the poor workingmen at those who take their places. What respect have physicians for the man who seeks to gain patients by lowering his fees? The same respect the union workingman has for the man who works for less than the minimum rate. When their opponents are fair the labor unions are in every way the equal of medical unions, and there is a spirit of sacrifice and unselfishness in them that is not to be found in any medical organi-

zation, and Dr. Ball speaks from experience in both. Medical men are fortunate in still owning some of the tools of their profession; but it will not be long before they will be obliged to defend themselves against the greed and commercialism of lay managers, insurance organizations and other institutions conducted for profit, and, perhaps, they will be very glad, then, not only to look to the labor unions for advice, but to invoke their aid in securing a living wage and the right to organize. The fight between labor and capital has not yet had its historian; but, when the story will be correctly told, the labor unions will stand forth brilliantly white against the blackness and foulness of their opponents. Medical unions need have no fear of demeaning themselves by adopting the principles of the labor union, whose motto universally is: 'One for all, and all for each.'" To all of which we say amen!

Dr. Gould, the editor of *American Medicine,* however, handles Dr. Ball without gloves, and among other absurd and untenable assertions says: "In work and methods the physician is essentially and universally free. . . . Trades' unionism in medicine would be organized selfishness, and the regulation of all conditions and motives for financial considerations. This would not be conducive to professional unity, nor would it be for the public welfare." Editor Gould expresses especial sympathy for the "scab." Now, is it not about time some plain truths were told, that may let in a little sunshine, and that plain facts were stated?

Do we not all know that there never has been such a thing as "professional unity," and that medicine has been divided into factions? Do we not know that the enforcement of a proper code of discipline means professional death to him who ignores it? The toiler labors primarily for himself, indirectly for the common weal. Does the physician do more?

The medical trusts are now taking shape in the form of colossal hospitals, dispensaries, insurance companies, the paid physician of the corporation, whose duties are to crush out all competition of every description, under a very much larger development and enforcement of the principle of trades' unionism in medicine.

In Great Britain the subject of medical underbidding has now become a matter for Parliamentary discussion, and members of the Council of the British Medical Association stand a good chance of an early decapitation by the plodding members of the British Medical Association.

The supreme indifference of the greater number of leading medical officers in the State and County medical societies to the wants and needs, and to the protection of "the men in the ranks," has led to such lack of interest in the profession, that not more than one-half of the general practitioners are attached to medical organizations of any description.

"To limit the output" is clearly within the right of any corporation of men. If it is right for the trust, why not for those who created the trust or made it possible? In medicine, it was long since found indispensable to raise the standard, the financial equipment of the apprentice and student, so as to, in some cases, absolutely exclude the self-made man or the poor student, and reduce the output of doctors fully 50 per cent. It is true, we do not assault the medical scab in America; but he has been murdered in Europe. Here, we reduce him by a more refined though none the less cruel, method of slow starvation; but as he elected to take the chances, so let him abide by them.

115 W. 49th Street, New York. T. H. Manley.

Systematic Mouth Disinfection as a Prophylactic Measure.—In an able editorial (*The Dietetic and Hygienic Gazette,* March, 1899) this important subject is treated in all its phases. It is claimed that if competent persons regularly examined the mouths of all school children, treated or removed all carious or diseased teeth, and enforced instructions with regard to the systematic and effective employment of proper antiseptic solutions and tooth-brushes, the death-rate in this country would be materially reduced. Nor would the benefits derived from the employment of such precautionary measures stop here. A stronger and more vigorous race would be another consequence. The mouth is naturally an incubator supplying all the conditions needful for the proliferation of disease-producing germs. Such germs easily find access with many others of a harmful character, and are always a source of danger. Nearly all effective germicides are themselves poisons, and consequently are not suited for disinfecting the mouth. But of all recognized antiseptics, none is more powerful than hydrogen dioxide, and this is at the same time entirely harmless. Its action depends upon the presence of oxygen, the most common element in the body. When applied, oxygen is set free, and this at once seeks union with that for which it has the greatest affinity in the process known as oxidation. In this process all albuminous matter, bacteria and other food products are destroyed. Oakland Hydrogen Dioxide is chemically pure, and therefore the safest and best for mouth disinfection.—*Medical News,* June 30th, 1900.

The Physician's Library.

BOOK REVIEWS.

Water and Water Supplies. By JOHN C. THRESH, D.Sc. (London), M.D. (Victoria), D.P.H. (Cambridge), Honorary Diplomate in Public Health, Royal College of Physicians and Surgeons, Ireland; Medical Officer of Health to the Essex County Council; Lecturer on Public Health, London Hospital Medical College; Fellow of the Institute of Chemistry; Member of the Society of Public Analysts; Associate Member of the British Association of Waterworks Engineers; Engineer in Hygiene, London University, etc. Third edition, revised and enlarged. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1901.

As the author says: "The main object of this little work is to place within the reach of all persons interested in public health the information requisite for forming an opinion as to whether any supply or proposed supply is sufficiently wholesome and abundant, and whether the cost can be considered reasonable." The evidence regarding the effects of pure water on health, and the facts showing the influence of a water supply in producing diarrhea, goitre, plumbism, malaria, enteric fever, cholera, are given *in extenso.*

The effects upon animals of drinking polluted water are also given. The writer says: "At the present time no one would contend that water fouled by cattle was fit to be used by man for drinking purposes, and probably ere long proofs will be forthcoming that the use of such water by cattle is not only inimical to their health, but also a source of danger to the public generally, who consume their milk and flesh."

The author evidently does not attach a supreme importance to expert examination of a water supply. In fact, he goes so far as to say that "Bacteriological, microscopical, and clinical examinations must always be associated with a thorough investigation of the source of the water to ascertain the possibility of contamination, continuous or intermittent."

And again, "The attempt to set up a standard of purity, based upon the number of micro-organisms in a given quantity, is as

illogical as the old chemical standards. Both depend upon quantity, whilst the real point at issue is the quality."

In view of the fact that Koch could not find the comma bacillus in the imperfectly filtered water of the Elbe, which was known to be polluted with cholera excreta, and to the use of which Koch and others attributed the outbreak of cholera at Hamburg, one is forced to admit that so marked a disease as cholera can be produced by a water supply, although the latter can be examined bacteriologically with negative results. The same objection, according to Dr. Thresh, applies to the fruitless search for the Eberth bacillus in water supposed to have caused typhoid fever. Although Dr. Thresh's book was published in 1901, he was evidently unaware of Professor Chantemesse's views on the proper methods of seeking for the Eberth bacillus in specifically polluted water. (For Professor Chantemesse's paper, see *La Presse Medicale,* Paris, June 5th, 1901.) J. J. C.

Hemmeter—Diseases of the Intestines. Their Special Pathology, Diagnosis and Treatment. With Sections on Anatomy and Physiology, Microscopic and Chemic Examination of the Intestinal Contents, Secretions, Feces, and Urine. Intestinal Bacteria and Parasites; Surgery of the Intestines; Dietetics; Diseases of the Rectum, etc. By John C. Hemmeter, M.D., Ph.D., Professor in the Medical Department of the University of Maryland; Consultant to the University and Director to the Clinical Laboratory, etc. In two volumes. Vol. I.—Anatomy, Physiology, Intestinal Bacteria, Methods of Diagnosis, Therapy, and Materia Medica of Intestinal Diseases, Diarrhea, Constipation, Enteralgia and Enterodynia, Meteorism, Dystrypsia, Enteritis Colitis, Dysentery, Intestinal Ulcers, Intestinal Neoplasms, etc. With many original illustrations, some of which are in colors. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1901. Large octavo, 740 pages. Price, $5.00 per volume. Canadian Agents: Chandler & Massey, Limited, Toronto.

The name of Hemmeter is known all over America as that of the author of the splendid work on diseases of the stomach, which had, and still has, a large sale. It is, therefore, not to be wondered at that a work in two volumes by the same author on Diseases of the Intestines has already received, almost universally, favorable comment, Dr. Hemmeter being well able to give to the profession a scientific presentation of such a subject.

He has divided his book into two volumes. The first covers Anatomy, Physiology, Intestinal Bacteria, Methods of Diagnosis, Therapy and Materia Medica of Intestinal Diseases, Diarrhea, Constipation, Enteralgia and Enterodynia, Meteorism, Dystryp-

sia, Enteritis, Colitis, Dysentery, Intestinal Ulcers, and Intestinal Neoplasms. A few of the chapters have been contributed from outside sources, "The Anatomy and Histology of the Intestines" being from the pen of Dr. J. Holmes Smith; that on "The Examination of the Feces and Urine" is by Dr. Harry Alder; the chapter on "Intestinal Bacteria" is written by Dr. W. R. Stokes, and the one on "Diseases of the Rectum" by Dr. T. C. Martin, of Cleveland. One chapter, which we read with care and considerable interest, is that on "The Methods and Technics of Diagnosis," running over 23 pages. The paragraph on Electrodiaphany—transillumination of the intestine—is certainly well worth reading, and we congratulate the author upon being able to present the subject so attractively. The use of the X-rays in the diagnosis of the intestinal disease; palpation and percussion of the abdomen, mensuration, auscultation, exploratory puncture of the abdomen, inflation of the intestines for diagnostic purposes with carbonic acid gas, with air, and by the injection of water through the anus, are also gone into in a most intelligent manner. About 70 pages near the close of the volume are devoted to ulcers of the intestine, and under that heading the author covers the ulceration, not only of inflammatory processes, but those the result of acute and chronic infectious disease and those occurring in constitutional diseases. We feel that Dr. Hemmeter will receive in this, his latest production, the hearty support of the profession as a body.

The Practical Medicine Series of Year-Books. Edited by eminent Specialists and Teachers, under the General Editorship of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Chicago: The Year-Book Publishers, 40 Dearborn Street.

Parts I. and II., on General Medicine and Surgery, have come in this month. We are greatly pleased with the character of the work. Each volume, being edited by a specialist in his particular line, is a guarantee that the best selections will be made from the literature of the year.

The work is not made up of disjointed extracts from journals, but is arranged in good readable form, credit being given to the various authors and journals from which the extracts are taken.

In the volume on medicine, tuberculosis is dealt with in all its phases—diagnosis, including the tuberculine test and radioscopy; treatment, including all the newer drugs and methods of treatment, both at home and in sanatoria.

Sixty pages are devoted to the heart and circulation. We were especially pleased with the articles on diagnosis, and the uses and abuses of digitalis and the uses of the nitrites.

Good plates are given of variola on the sixth and tenth days of eruption, and of varicelli on the fifth day. Tables for differential diagnosis between variola and varicelli are given. The various features of the prevailing smallpox outbreak are well taken up, as is also the subject of vaccination.

The second volume of the series edited by Dr. John B. Murphy, opens with selections on anesthesia, general and local. Considerable space is given to lumbar puncture, with reports of cases and careful observations on the effects and results; 122 pages are devoted to diseases of the abdomen, including stomach, intestines, and appendix.

In the chapter dealing with diseases of the extremities, 13 very clear and instructive stereographs are given.

Diseases of the kidney, bladder, and rectum are well represented. The work is illustrated by 30 plates and 19 figures. We think this series of year-books will be highly appreciated by the profession, and especially by the busy practitioner, who will here find the best work of the year in any line selected and arranged by a specialist in that line. W. J. W.

The Outcasts. By W. A. Fraser. Illustrated by Arthur Heming. Toronto: William Briggs.

One of the most interesting animal stories of the day, and describes the passing of the bison (bison Americanus). The passing from the face of the earth of this, the largest of the native animals of North America has taken place within the last thirty years, and its extermination may be laid to lax government restrictions in protecting the wanton destruction of this noble quadruped by profit hunters who destroyed it merely for its hide, while its carcase was left for carrion. In 1858, when a party was traversing the country by waggon train from the State of Missouri to Mexico, they were continually surrounded by large herds of buffalo; so numerous were they that an eye-witness said: "They were in bands, in masses, in hosts. The shaggy black creatures thundered along in front of us, thousands upon thousands, tens of thousands upon tens of thousands, an innumerable mass, the flesh of which, as we believed, was sufficient to provide the wigwams of the Indians unto all eternity." In 1889 Mr. William T. Horniday estimated the number of survivors to be eight hundred and thirty-five, including the two hundred then living in Yellowstone Park, under the protection of the Government. This, I am sorry to say, is likely to be the fate of the moose and other species of deer in the near future, unless rigid laws are enacted for their protection. There is a species of buffalo called the wood buffalo, which inhabits the wooded uplands south-west and west of Lake Athabasca, which is supposed to be the survivor of the bison Americanus, but

its environment has changed it very much. The bulky shoulders and short legs have been replaced by narrower shoulders and longer legs, nature's change to allow the easy passage of the animal between the trees, and to adapt it to its changed methods of life. Mr. Fraser describes this transition from prairie to woodland of the buffalo in a delightful story, which has a moral teaching which cannot be too much praised, and I feel glad that I have read this book, and heartily commend it to the reading public.

A. J. H.

A System of Physiologic Therapeutics. A practical exposition of the methods, other than drug-giving, useful in the prevention of disease, and in the treatment of the sick. Edited by Solomon Solis Cohen, A.M., M.D., Professor of Medicine and Therapeutics in the Philadelphia Polyclinic, etc. Vol. VI., Dietotherapy and Food in Health, by Nathan S. Davis, A.M., M.D., Professor of Principles and Practice of Medicine in North-Western University Medical School. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1901. Canadian Agents: Chandler & Massey, Limited, Toronto.

Frequently a medical man, in the treatment of his cases, pays too little attention to the subject of diet in disease, this being due to unintentional carelessness in many instances, but often to a certain lack of knowledge of that important department of therapeutics, dietotherapy. That the kind of food which should be allowed to be partaken of by patients during illness is just as important as the nursing or the prescription itself goes without saying; but up till comparatively recently this was often paid too little attention to, thus delaying the stage of convalescence. Dr. Davis' volume in this series gives an immense amount of information upon dietetics, and discusses under each disease the kind of food which should be given. The author also goes into the details of both "the chemical and the physiological data concerning the nutritive and other qualities of various kinds of food," which, to even the older physician, who may have become rusty in his primary studies, will be found at once interesting and most instructive. Vol. VI. of Physiologic Therapeutics is rather ahead of, than behind, the preceding volumes.

W. A. Y.

Venereal Diseases. A Manual for Students and Practitioners. By James R. Hayden, M.D. Third edition. Philadelphia: Lea Brothers & Co.

This little book, which is one of the series of Pocket Text-Books, has been brought fully up-to-date. New sections on Vegetations and Herpes progenitalis have been added, and also many new illustrations. The text has been completely revised and in

many parts rewritten. It is satisfactory to note a conservative tone in respect to remedial systems, and the author gives but little encouragement to the more violent methods of treatment, which have been advocated from time to time by the more enthusiastic of the supporters of the abortive treatment of gonorrhea, and gives a caution against too early attempts at aborting a gonorrhea, when that particular method is employed. The chapters on the various forms and causes of stricture, its causes and treatment, are exceedingly good, but the very decided preference evinced by the author for soft instruments in examinations of the urethra as against silver and steel instruments and sounds might be open to attack.

Urinary fever receives full consideration, and also a subject very closely connected with it, the care and use of instruments. In this part of the work, in which syphilis and its varied manifestations is considered very fully, the table given for the differential diagnosis of the chancre and chancroid is well worked out, and very clearly gives the distinctive features of the two conditions, and must prove of the utmost value to students and practitioners generally. In the administration of mercury for constitutional syphilis the author prefers the use of inunctions, and gives clear and full directions for carrying out the inunction satisfactorily. It is not possible to go into the various chapters of this book, but the impression made by it as a whole is, that it is a practical work of the very highest utility, containing all that is necessary for the practitioner or student. J. H. L.

Progressive Medicine, Vol. IV., 1901. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 400 pages, 13 illustrations. Per annum, in four cloth-bound volumes, $10.00. Philadelphia and New York: Lea Brothers & Co.

In Volume IV. of Progressive Medicine, we find the following subjects taken up : Diseases of the Digestive Tract and Allied Organs—liver, pancreas, and peritoneum, Genito-Urinary Diseases, Anesthetics, Fractures, Dislocations, Amputations, Surgery of the Extremities and Orthopedics, Diseases of the Kidneys, Physiology, Hygiene and Practical Therapeutics. Among the contributors appear such names as Chalmers DaCosta, William Ewart, W. B. Coley, Jos. C. Bloodgood, Max Einhorn, Alfred Stengel, H. B. Baker, and A. L. Turner of Edinburgh.

Perhaps the most practical section is that by Dr. Jos. C. Bloodgood, the Associate Professor of Surgery in the Johns Hopkins

University, dealing with Anæsthetics, Fractures, Dislocations, Amputations, Surgery of the Extremities, and Orthopedics. It covers about 120 pages, and is immensely instructive. Dr. Bloodgood gives all the methods of producing anesthesia, both local and general, with their relative value as to efficiency and safety. He discusses lumbar puncture and use in spinal anesthetization. The author attaches, and in our opinion correctly, a great deal of importance to the examination of the blood in surgical cases.

Dr. Henry B. Baker's chapter on Hygiene is very interesting, and will, we know, attract a good deal of notice, as he takes up the subject which has so recently called forth so much discussion, viz., bovine and human tuberculosis.

Marietta: a Maid of Venice. Toronto: The Copp, Clark Co., Limited.

"Marietta: a Maid of Venice" is the title of F. Marion Crawford's romance, depicting the struggle of Lorzi, the Dalmatian, to become an independent glass-blower in Venice. It is partly founded on historical fact, showing very clearly the narrow views held by the Venetian guild of glass-makers at the latter end of the fifteenth century, and their determination to exclude foreigners from participating in their special privileges. The story, which contains many descriptions of the scenery of the City of the Doges, and is brimful of the light and shade of Venetian life, ends happily in the artistic triumph of Lorzi and his attainment of the full rights and privileges of the glass-blowers' guild.

Fortunate in love, also, he wins the heart and hand of Marietta Beroviero, his master's daughter, who prefers a man of talent to a brainless nobleman. This same nobleman, Jacopo Contarini, plays a more notable part in the sub-plot of the romance, which details the amorous adventures and intrigues of Arisa, a Georgian slave, with him, and also with the heavier villain, the Greek pirate, Aristarchi. These adventures, which are warm in color and realistic in outline, seem placed on the canvas to illustrate the less admirable phases of human existence. By very contrast, the soul-lit lives and pure loves of Marietta and Lorzi illuminate young, passionate, human nature with a serene and very satisfying light.

J. J. C.

A Manual of Volumetric Analysis. By Virgil Coblentz, Ph.D., etc., etc. Philadelphia: P. Blakiston's Son & Co. Canadian Agents: Chandler & Massey, Limited, Toronto.

This work is one which can be recommended to medical students and practitioners as containing in comparatively small compass a fairly up-to-date treatment of a branch of chemical work which is becoming more and more important on account of the

greater attention given to accurate analysis of urine and gastric contents.

In the first chapter upon apparatus and their calibration and use we might suggest that the space occupied by the illustration of three antiquated burettes might have been used to better advantage by an account of one of the quick methods of calibration, and some hints upon removing grease from the measuring instruments.

The chapter on indicators is a valuable portion of the volume, but it is to be feared that the paragraph on the iron hypothesis will not convey much to those who are not already familiar with the subject. The selection of methods is judicious and fairly complete, and, as is to be expected in a book written by a professor of a College of Pharmacy, we find instructions for the assay of crude drugs and of galenical preparations.

It is unfortunate, however, that no mention has been made of the employment of the volumetric solutions of potassium arsenites.

On the whole the book may be highly recommended.

J. J. M.

The Healing of Nerves. By Charles A. Ballance, M.S., F.R. C.S., Assistant Surgeon to St. Thomas' Hospital and Lecturer on Surgery in the Medical School; Surgeon to the National Hospital for the Paralyzed and Epileptic, Queen Square; Surgeon to the Hospital for Sick Children, St. Ormond Street; and Purvis Stewart, M.A., M.D., M.R.C.P., Assistant Physician to the Westminster Hospital; Lecturer on Materia Medica and Pharmacology in the Westminster Hospital Medical School. Illustrated by 16 plates and one figure in the text. London: Macmillan & Co., Limited. New York: The Macmillan Company. 1901.

This is essentially an atlas and not an ordinary text-book. It is certainly a work of art, the colored plates being most delicate and illustrating the healing of nerve tissue at different stages and under different circumstances in a manner which conveys to the reader most effectively nature's methods in this connection. Plate I. is very beautiful. It shows (Fig. 1) the sciatic nerve of a cat divided and not sutured (24 hours), with the primitive end bulb of the proximal segment (x 50); Fig. 2, the same nerve at end of five days, with degeneration of medullary sheaths in distal segment; Fig. 3, immediate reunion at end of two weeks, showing the early formation of new sheaths in the lower end of central segment, and Fig. 4, the nerve at end of three weeks, showing well-marked spiral tubular plexus in lower end of proximal segment. There are in all sixteen plates, each one as beautiful as the first. The atlas is most instructive, and covers a ground hardly touched by any other writers. It sells at 12s. 6d. in London. We congratulate Dr. Stewart and Mr. Ballance on the excellence of their volume.

A Laboratory Hand-Book of Urinary Analysis and Physiological Chemistry. By CHARLES G. L. WOLF, B.A., M.D., Instructor in Physiological Chemistry, Cornell University Medical College, New York. Illustrated. Philadelphia and London: W. B. Saunders & Co. 1901. Canadian agents, J. A. Carveth & Co., Toronto. $1.25.

"The object of this book is to supply to students and practitioners of medicine a guide to a course in physiological chemistry, and the examination of the urine and the contents of the stomach." The author wisely refrains from giving a long list of tests of doubtful value, but selects the most reliable ones, and describes them in detail. For the detection of free hydrochloric acid in the gastric contents he recommends the usual aniline dyes, and also Gunzburg's well-known test, phloroglucin-vanillin. Ample instructions are given regarding test-breakfasts and the usual methods of securing stomach contents for examination by means of siphonage. The section on urinary analysis is very satisfactory. Simple methods for qualitative and quantitative analysis are given, and the microscopic appearances of the more common inorganic sediments are illustrated. A somewhat elaborate, but useful, table of urinary diagnosis is given.

A. E.

The Four Epochs of a Woman's Life. A Study in Hygiene. By ANNA M. GALBRAITH, M.D., Author of "Hygiene and Physical Culture for Women;" Fellow of the New York Academy of Medicine, etc. With an Introductory Note by JOHN H. MUSSER, M.D., Professor of Clinical Medicine, University of Pennsylvania. 12mo volume of 200 pages. Philadelphia and London: W. B. Saunders & Company. 1901. Cloth, $1.25 net. Canadian Agents: J. A. Carveth & Co., Toronto.

For many decades it has been a well-known fact that one of the causes of, at least, the minor ailments of womankind is ignorance on their part as to nature's laws. How often does a family physician come across cases where he cannot but be surprised at the foolishness of those who ought to know better, but he accounts for many sicknesses by the fact that his patient simply did not know what would appear to him should come to her by natural instinct. Dr. Anna M. Galbraith, in her book, seeks to throw light upon many points which are as yet obtuse to the female sex, and the perusal of the volume will be the means of affording a natural cure to many a sufferer.

A Manual of Clinical Laboratory Methods. By JOHN BENJAMIN NICHOLS, M.D. New York: William Wood & Co.

The increased complexity of methods of clinical diagnosis has given rise to a host of text-books dealing with the practical

laboratory side of the question. Dr. Nichols' book does not differ much from many other similar works; in fact, as he says in the preface, it does not profess to present much that is new or original. Although the book is not very small (it contains nearly 300 pages), an attempt has been made to include too much matter, and consequently the descriptions of methods are somewhat too condensed. The methods of gastric analysis might, with advantage, have been given in greater detail and with fuller explanations, as these are methods with which the student and medical practitioner most frequently has trouble. It seems unnecessary, also, to include in such a book a chapter on the making of autopsies. Otherwise, the book is well written and a fair piece of bookmaking.

J. J. M.

The Technique of Surgical Gynecology. Devoted exclusively to a description of the technique of Gynecological Operations. By Augustin H. Goelet, M.D., Professor of Gynecology in the New York School of Clinical Medicine; Consulting Professor of Gynecological Electro-Therapeutics, International Correspondence Schools, Scranton, Pa.; Fellow of the New York Academy of Medicine, and of the New York Obstetrical Society, etc. Published by the International Journal of Surgery Co., Medical Publishers, 100 William Street, New York.

It is generally admitted that the ordinary work upon gynecology does not sufficiently go into detail on the subject of technique, the preparation of the patient for operation, the after-treatment of the patient, etc. This has been found fault with in our review columns in the past, and we think that it is a hint worthy of recognition, as there is no doubt that much of the success connected with any case is attributable to the manner in which the patient is attended to both before and after operation. We have gone through Dr. Goelet's book pretty thoroughly, and feel glad to offer our word of praise, as the volume is exceedingly practical, and will, we feel sure, be found valuable to every practitioner, whether he pays much attention to gynecology or not.

The Pocket Gray, or Anatomists' Vade-Mecum. By the late Edward Cotterell, F.R.C.S. Fifth edition, revised and edited by C. H. Fagge, M.B., M.S., London, F.R.C.S., Senior Demonstrator of Anatomy, Guy's Hospital. Twentieth thousand. New York: Wm. Wood & Co. 1901.

The anatomy of the human body is a subject which every practitioner must keep familiar with, and every day something crops up which shows the great necessity of this. It is of course impossible for one to carry round a volume like Gray's Anatomy with him, but a pocket edition of that splendid volume can be

made to fit into a corner of the satchel, and in that way be consulted according to requirement. Dr. Fagge has in the fifth edition so revised his "Anatomists' Vade-Mecum" that it will be found an exceedingly useful book, and is without doubt a *multum in parvo* to both physician and surgeon alike.

Manual of Physical Diagnosis. For the use of Students and Physicians. By James Tyson, M.D., Professor of Medicine in the University of Pennsylvania and Physician to the University Hospital; Physician to the Philadelphia Hospital; Fellow of the College of Physicians of Philadelphia; Member of the Association of American Physicians, etc. Fourth edition, revised and enlarged. With colored and other illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. Canadian Agents: Chandler & Massey, Limited, Toronto. 1901. 12mo, cloth. $1.50 net.

Like all the writing of Professor Tyson, this is a safe and practical guide to physical diagnosis for those for whom it is intended. The book is creditable to the publishers. A. McP.

LITERARY NOTES.

E. Merck, the well-known manufacturer of fine pharmaceuticals, Darmstadt, Germany, will be pleased to send to any physician making application for the same a copy of his recent pamphlet, "Short Notes on Some of the Merck Products." The booklet gives useful particulars as to the properties and uses of Merck's special preparations.

Jonathan Hutchinson, F.R.S., General Secretary of the New Sydenham Society, has requested Messrs. P. Blakiston's Son & Co., of Philadelphia, the American agents of the Society, to announce the publication of an "Atlas of Clinical Medicine, Surgery and Pathology," selected and arranged with the design to afford, in as complete a manner as possible, aids to diagnosis in all departments of practice. It is proposed to complete the work in five years, in fasciculi form, eight to ten plates issued every three months in connection with the regular publications of the Society. The New Sydenham Society was established in 1858, with the object of publishing essays, monographs and translations of works which could not be otherwise issued. The list of publications numbers upwards of 170 volumes of the greatest scientific value. An effort is now being made to increase the membership, in order to extend its work.

THE DOCTOR'S DREAM.

Last evening I was talking
With a doctor, aged and gray,
Who told me of a dream he had,
I think 'twas Christmas day.

While snoozing in his office,
The vision came to view,
For he saw an angel enter,
Dressed in garments white and new.

Said the angel, "I'm from heaven;
The Lord just sent me down,
To bring you up to glory,
To wear your golden crown.

"You've been a friend to everyone,
And worked hard, night and day;
You have doctored many thousands,
And from few received your pay.

"So we want you up in glory,
For you have labored hard,
And the good Lord is preparing
Your eternal, just reward."

Then the angel and the doctor
Started up toward glory's gate,
But when passing close to hades,
The angel murmured, "Wait."

"I have here a place to show you;
It's the hottest place in hell,
Where the ones who never paid you
In torment always dwell."

And, behold, the doctor saw there
His old patients by the score,
And taking up a chair and fan,
He wished for nothing more.

But was bound to sit and watch them,
As they sizzle, singe and burn,
And his eyes would rest on debtors
Whichever way they'd turn.

Said the angel, "Come on, doctor,
There the pearly gates I see;"
But the doctor only muttered,
"This is good enough for me!"

He refused to go on further,
But preferred to sit and gaze
At that crowd of rank old dead-heads,
As they lay there in the blaze.

But just then the doctor's office clock
Cuckooed the hour of seven,
And he awoke to find himself
In neither hell nor heaven.

—G. A. Moore, M.D., Dunlop, Mo., in *Medical Herald.*

The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF MEDICINE AND SURGERY

VOL. XI. TORONTO, MARCH, 1902. NO. 3.

Original Contributions.

THE OPERATIVE TREATMENT OF CHRONIC BRIGHT'S DISEASE.*

BY A. PRIMROSE, M.B., C.M. (EDIN.), M.R.C.S. (ENG.)

Professor of Anatomy and Associate Professor of Clinical Surgery in the University of Toronto; Surgeon to the Hospital for Sick Children, Toronto, etc.,

THE attention of the profession has recently been directed to the fact that albuminuria as a symptom of renal disease may completely disappear after certain operations upon the kidney. It is now suggested that chronic Bright's disease may be so cured. Occasionally a patient presents himself with symptoms indicating the presence of a renal calculus, and an operation is undertaken for his relief. The operator may fail to detect the presence of a stone, but in spite of that fact the symptoms may be relieved by the operation. In these cases the albuminuria, which had previously existed, may completely disappear and the other symptoms of renal disturbance may also be relieved, so that a complete and permanent cure is effected. This train of events has been recognized as possible for some years, but the significance of them and the bearing they might have upon the cure of nephritis by operative procedure have but recently been fully realized.

It was with the object of relieving grave symptoms in a case of chronic Bright's disease that I undertook recently to operate upon the kidneys. A child ten years of age suffered from nephritis. The history is obscure as to the onset of his illness, but for six months before he came under my care he had general anasarca and ascites. During that time paracentesis abdominis had been performed seven times. On admission to the hospital on November 8th

* Written specially for THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

1901, the urine contained 1.6 per cent. of albumin, the abdomen was enormously distended with fluid, and there was great swelling of the face and edema of the extremities. The lad's general condition was considered very serious and a gloomy prognosis was given. Paracentesis abdominis was performed and 180 ounces of fluid drawn off from the peritoneal cavity. The urine, which contained the large amount of albumin indicated, also contained numerous hyaline, granular and epithelial casts. On November 21st I cut down upon the right kidney in the loin. I found it much enlarged. I made an incision two inches long through the capsule and subsequently drained the lumbar wound for a fortnight. As a result of the operation the amount of urine secreted in twenty-four hours gradually increased from fourteen ounces in twenty-four hours to forty ounces on the seventh day after the operation, whilst the percentage amount of albumin diminished from 1.6 per cent. to 0.8 per cent. The child's condition, however, did not continue to improve, and it appeared evident that permanent relief of symptoms had not been secured. One was encouraged, however, by the profound effect produced upon the condition of the patient by the simple operation upon the right kidney of splitting the capsule, and it was therefore thought justifiable to perform a more extensive operation upon the left kidney. Accordingly, on December 20th, forty-two days after admission to the hospital, I cut down upon the left kidney and removed the kidney capsule in its entirety. The child was critically ill for some days subsequently, and unfortunately contracted pneumonia towards the end of the first week after operation. We despaired of his life, but he gradually recovered from the pneumonia, and the renal symptoms underwent a remarkable abatement, so that while the amount secreted in twenty-four hours rose to forty-four ounces the amount of albumin diminished to .03 per cent., in fact there remained little more than a mere trace of albumin, and the casts were also very largely diminished in number. The general edema vanished, and the ascitic fluid was reabsorbed and disappeared.

The details of the case are as follows: B. W., aged 10; born in England; admitted into the Hospital for Sick Children, Toronto, on November 8th, 1901. The patient was referred to me by Dr. Moorehouse, of Toronto.

The family history is not known; the patient is a Barnardo boy, and his previous history is not obtainable in any detail. He was admitted into the hospital at Huntsville on the 30th May, 1901, with the history that for some weeks his legs had been swelling, and subsequently his face. After he had been in the Huntsville Hospital for a month his abdomen began to get distended. This condition soon demanded tapping for his relief, and during the five months' stay in hospital he was tapped seven times.

On admission into the Hospital for Sick Children he presented the characteristic facies of a patient suffering from chronic Bright's disease. The face was puffy, the eyelids so swollen that the pal-

pebral fissure was greatly reduced in size. The skin was stretched and transparent in appearance, and the mucous membrane pale and anemic. There was general anasarca, save that there was no apparent edema of the scrotum and penis. The abdomen was very prominent, measuring 32½ inches in circumference at the umbilicus; the superficial veins of the abdomen wall were unduly dilated; the flanks were prominent and dull on percussion: there was very distinct fluctuation in abdomen, and all the indications of a large amount of free fluid in the peritoneal cavity; this caused considerable difficulty in breathing.

Examination of the lungs and pleurae showed nothing abnormal. The heart rhythm was regular but rapid (128 per minute); there was no abnormality of the heart sounds; appetite poor, tongue moist and covered with a whitish fur; bowels, constipated; urine, specific gravity 1025, acid, large amount of albumin, no sugar.

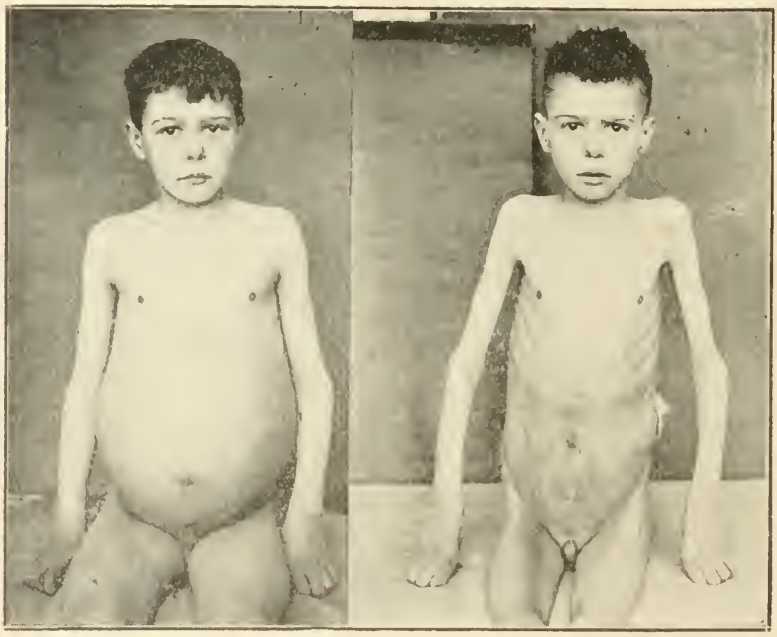
Four days after admission, November 12th, the evening temperature was 103°, pulse 132, respirations 48. The abdomen now was very tense and distended; the cardiac apex displaced upwards and to the left, outside the nipple line. Paracentesis abdominis was performed and 180 ounces of colorless fluid were drawn off. Subsequently the abdomen was examined; the liver dulness was found on percussion to be one and a half inches below the costal margin in the right nipple line. The spleen was not enlarged. He was much relieved by the tapping. The urine was found to contain 1.6 per cent. of albumin; it also contained hyaline granular, fatty and epithelial casts. For a few days after the tapping he was brighter, and the edema of the extremities diminished somewhat. On November the 14th, hot packs were employed as a method of treatment and sweating was induced. This relieved matters somewhat, and the edema of the face improved. The patient was passing from sixteen to twenty-five ounces of urine in twenty-four hours. The fluid rapidly re-accumulated in the abdomen, however, and on November 20th, eight days after the previous tapping, paracentesis was again found necessary and 100 ounces of fluid drawn off. Next day he only passed thirteen and a half ounces of urine. He developed a troublesome cough, and the physical signs at the bases of the lungs of impaired resonance, a lessening of vocal fremitus and mucous râles (vocal resonance being present), indicated edema of the lungs. The apex beat of the heart was in the fourth interspace, half an inch to the inner side of the nipple, and the left border well within the nipple line. There was evidently no hypertrophy of the heart.

As he was not making any progress towards recovery, operation upon the kidney was suggested, and accordingly, on November 21st, 1901, the following procedure was carried out:

The right kidney was cut down upon by an oblique lumbar incision. The kidney was easily reached and was found to be greatly enlarged. The lower end was well below the iliac crest, the upper end was not reached in wound. In color it appeared about normal,

one might describe it as an ashy purple. In consistence I failed to find it abnormally tense. I first of all needled it, but no bleeding of any consequence came from the punctures: in fact, there was hardly any oozing. I then cut into the capsule with a scalpel along the convex border; in order to do so efficiently I cut fully one-quarter of an inch into the cortex of the kidney, and this cut was carried along about one and one-half inches: a drainage tube was placed down to this point, a few sutures were introduced, and a piece of iodoform gauze and dressing applied.

For a few days after the operation his condition was considered critical. During the first twenty-four hours he only passed seven



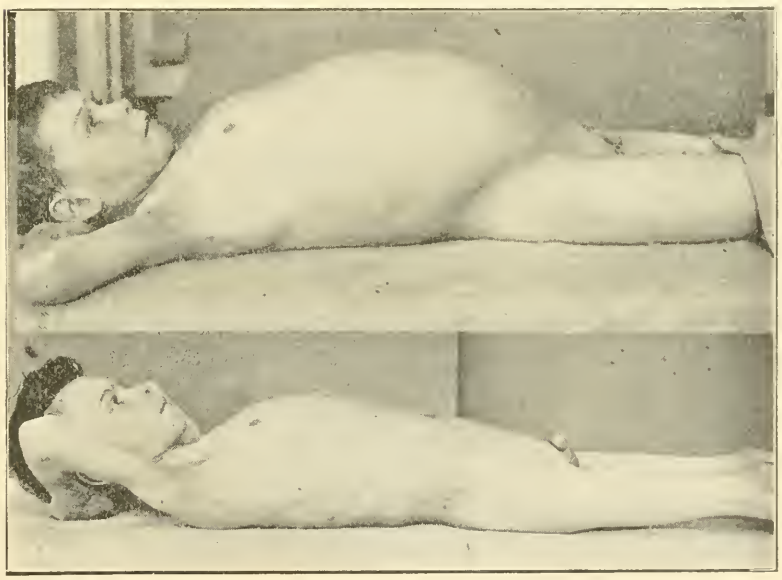
Photograph of patient on November 19th, 1901, two days before the first operation on the kidney.

Photograph of patient on February 3rd, 1902, forty-five days after the last operation on the kidney.

ounces of urine, and the facial edema greatly increased so that the eyes were almost completely closed up. The breath possessed a peculiar odor like stale urine (uremic), the temperature was normal, but the pulse 120. He soon began to improve, however, so that on the third day after operation he passed twenty-four ounces of urine and the pulse was 96: the patient was quite bright, and expressed himself as feeling much better.

The subsequent history indicated a gradual improvement in his condition, the amount of urine passed in twenty-four hours rose considerably until on December 11th (three weeks after operation) he

passed forty-three ounces of urine whilst the percentage amount of albumin dropped to .925. The abdomen, however, gradually filled up again, but it was noted as a remarkable fact that the fluid had returned very much more slowly than was the case before the operation on the kidney. In fact, whilst before operation tapping became necessary after an interval of eight days, subsequent thereto twenty-seven days elapsed before paracentesis again became necessary. At this third tapping 130 ounces of fluid were removed. The urinalysis at this time showed 1.2 per cent. of albumin, the amount of urine in twenty-four hours having fallen to seventeen ounces. Squamous and conical epithelial cells were present in large numbers, a few granular and a very few blood casts with



The upper photograph was taken on November 19th, 1901, two days before the first operation The lower photograph was taken on February 3rd, 1902, forty-five days after the last operation on the kidney.

some red blood cells; there were a few pus cells, a considerable quantity of granular débris and a few phosphates. Fluid accumulated with great rapidity after the last tapping, and apparently the patient was not making satisfactory progress. The undoubted fact of his improvement after the slight operation on the right kidney, however, suggested the advisability of doing a more complete operation on the left kidney with the hope that some permanent benefit might be derived therefrom, and consequently, on December 20th, 1901, the following operation was performed on the left kidney:

The left kidney was exposed in the loin with a view of strip-

ping the capsule. I cut into the perirenal fatty capsule and passing my finger down to the surface of the kidney, and sticking very closely to the organ, I carefully stripped it completely on all its aspects. I then pulled the lower half of the kidney out on to the abdominal wall, completely out of the wound, and made a superficial incision for the purpose of stripping the capsule. I could find no capsule and then discovered that I had pulled off the capsule with my original stripping in the wound. I found the capsule lying puckered up at the renal pelvis and drew it forward to see how it could be spread out on the surface of the kidney. I then satisfied myself that the kidney was stripped of its capsule back and front over its entire surface. The kidney was very markedly enlarged: its lower pole extended down very considerably beyond the iliac crest. It was somewhat dark in color and not pale like its fellow at the last operation (possibly this was due to congestion as the result of the stripping of the capsule). A drainage tube and a piece of gauze were placed in position upon the kidney, otherwise the edges of the wound were united by interrupted silk-worm gut sutures, the deep fascia being stitched with catgut.

The day following operation the amount of urine in twenty-four hours dropped to fifteen ounces, with 1½ per cent. of albumin, and he developed a severe cough. The edema of the face became very marked and his condition became very critical. One week after the operation the stitches were removed and the wound was found united in its anterior portion, but open behind where drainage had been maintained. His cough became very troublesome, the temperature rose to 103, with a pulse of 120, and respirations 40. The physical signs in his chest revealed the fact that he had pneumonia affecting the posterior border and back of the right lung. The coughing had put a strain upon the new tissue of the wound with the result that the whole wound opened up and the kidney herniated through it, and at the subsequent dressing (the evening of the day upon which the stitches were removed) the kidney lay quite on the surface. The kidney was replaced and the edges of the wound brought together and supported as well as possible by strapping.

On December 28th, eleven days after the previous tapping, paracentesis was again performed, as there was considerable distress from distension, and in view of his pneumonia it was thought wise to relieve him, although only sixty ounces of fluid were found on drawing it off. The following day he was very ill. Temperature, 103.4; pulse, 140: respiration, 48 per minute: but he gradually improved, made a complete recovery from the pneumonia, and his present condition to-day (forty-nine days after the last operation) is very satisfactory. The small reaccumulation of fluid after the last tapping was reabsorbed; the general anasarca in the limbs and face completely disappeared. The amount of albumin has progressively diminished until it is now down to .025 per cent. The patient is very thin and emaciated. The urine has a sp. gr.

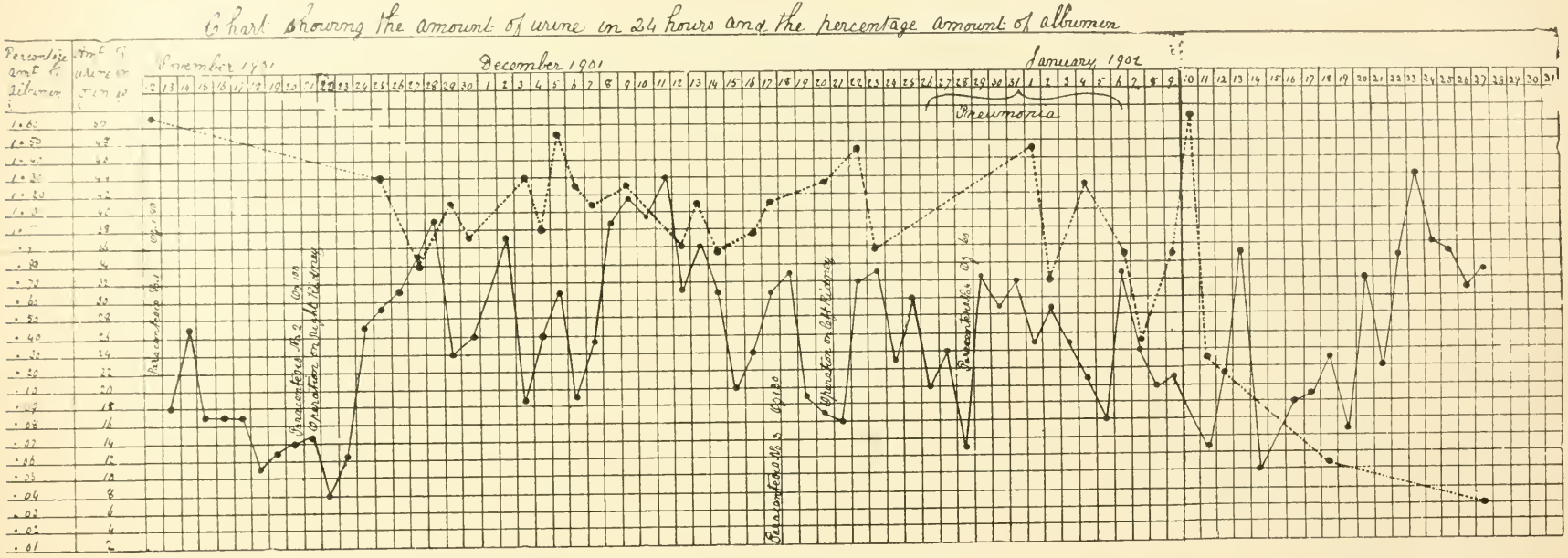


Chart showing the amount of urine in 24 hours and the percentage amount of albumen
November 1901
December 1901
January 1902
Pneumonia
Percentage amt. of albumen
Amt. of urine in ounces

In this chart the dotted line indicates the percentage amount of albumin from day to day, and the continuous line the daily amount of urine in ounces. The dates of operations are also noted.

of 1011, acid reaction, containing a few blood corpuscles, a few casts and some amorphous urates.

This truly is a remarkable and satisfactory result, but the explanation thereof is to my mind still quite obscure. The treatment has thus far been purely empirical. The fact that stripping the capsule of the kidney relieves the condition of albuminuria was stumbled upon accidentally, and it has gradually dawned upon us that we may possibly possess an effective method of treating chronic and acute nephritis. Nothing we know of the physiology and pathology of renal secretion will adequately explain the results obtained in this operation. There is here provided a field for valuable research work, and, no doubt, investigation will proceed forthwith in the experimental laboratory. The questions which have to be solved are how can this operation produce such an effect upon the secretory activity of the kidney as to increase the amount of urine secreted and to diminish the amount of albumin, and how are these effects so far-reaching as to remove edema and ascites?

Mr. Reginald Harrison has suggested an explanation which appeals to me as reasonable if applied to certain classes of cases. He believes that renal tension is relieved by splitting the capsule, and thus the kidney is permitted to perform its normal function. That renal tension exists in acute nephritis no one will deny: such rapid swelling of the organ has occurred that, post-mortem, the capsule has been found to have actually burst. Well recognized principles of surgery may therefore be employed here, and an incision of an acutely inflamed kidney may, by relieving tension, afford relief and effect a cure, just as a glaucoma is relieved by iridectomy, or an acute orchitis is relieved by incision. These are comparisons suggested by Mr. Harrison, and we cannot but agree that the arguments he advances along these lines for incision of the capsule of the kidney in acute nephritis are logical. The explanation is, however, not adequate for those cases of albuminuria of long standing which are relieved by simple nephrotomy.*

Mr. Harrison's successful cases are those of post-scarlatinal nephritis; nephritis contracted by exposure to cold; nephritis after influenza and that of traumatic origin. He has also observed the disappearance of albumin after operation in calculous nephritis.

In December, 1901, there appeared in the New York *Medical Record* a paper by G. M. Edebohls, of New York, with the promising title, "The Cure of Chronic Bright's Disease by Operation." The author proposed to treat chronic Bright's disease by bilateral renal decapsulation. He gives a table of eighteen cases of kidney operations where albumin was present; of these eight cases were cured; they had all been under observation for from one to eight years after operation, and the albumin and casts were no longer found in the urine. The other ten cases were in most instances relieved. This looks most promising and encouraging, but when

* "Renal Tension and its Treatment by Surgical Means," by Reginald Harrison. *British Medical Journal*, October 19th, 1901.

we analyse Dr. Edebohl's paper carefully we cannot but feel disappointed. In the first place, we find him claiming that "the proposition to treat chronic Bright's disease by bilateral renal decapsulation as a basic operation is original with the writer." This, no doubt, is a fact, but unfortunately he only acted upon this proposition in a single instance, and his patient lived but eight weeks after operation, dying of pyelitis. Sixteen of his cases were patients subjected to the operation of nephropexy, presumably for floating kidney, the capsule being stripped to an extensive degree in the operation. Albuminuria had been observed in these cases before operation, and subsequent thereto albumin disappeared in most instances; the remaining case was one of septic nephritis, where one kidney only was available for operation, the other having been removed some months previously for septic nephritis, the kidney being riddled with innumerable abscesses:* as the operation on the remaining kidney had only been performed thirty days before the record was made, the result as to permanence of relief cannot be predicted with certainty. Edebohl's youngest patient was nineteen years of age.

The disappearance of albumin and casts from the urine after operation on the kidney has been noted by many observers, such as Rose, Newman and Ferguson. We are mainly indebted, however, to Harrison, in England, and to Edebohl, in America, for pointing out the bearing which these results have on the question of the possibility of curing albuminuria by surgical means.

Harrison's explanation of the results is reasonable, and we are almost bound to accept it for acute nephritis, but as yet we are wholly in the dark, in my opinion, respecting chronic nephritis. In my case the capsule was not tense; the kidney, it is true, was much enlarged, but this was due to a slow process of chronic parenchymatous nephritis, and the capsule no doubt gradually accommodated itself to the increased bulk of the organ. Edebohl believes that as the result of the operation of decapsulation strong bands of adhesions form between the kidney and its immediate surroundings; large blood vessels run in these, and thus the blood supply to the kidney is greatly increased; this, he believes, "allows of gradual absorption of interstitial and inflammatory products, freeing tubules and glomeruli from external compression, constriction and distortion, and permits establishment in them of normal circulation, resulting in regeneration and reproduction of the new epithelium." The cure, in his opinion, is gradual and progressive, and the final disappearance of albumin and casts may not occur for from one to twelve months after operation.

Edebohl considers that a cure of cirrhosis of the liver is a possibility by securing for the liver a similar increase of blood supply,

* Recently Lennander, of the University of Upsala, has drawn attention to the benefit derived from splitting the kidney and resecting portions of diseased kidney tissue in acute pyelonephritis with miliary abscesses. He reports five cases. An abstract of his paper appears in the *Centralblatt für Chirurgie*, November 2nd, 1901, p. 1087.

and he even suggests that in the future there may be established a triple operation by a single incision through the anterior abdominal wall, thus reaching the liver and both kidneys, and submitting these organs to operative treatment for the purpose of effecting a cure of cirrhosis of the liver and of chronic nephritis. We are surely not warranted at present in entertaining such a suggestion seriously.

It is very easy to criticise theories, particularly when the physiological problems involved are so obscure, but I confess that Edebohl's theory is not satisfactory to my mind. Clearly, however, we have certain facts of striking interest to record concerning the profound effect produced by operation in these cases of chronic nephritis. The case which I now present is probably unique, and one confesses to being in the dark when seeking for an explanation of the results obtained. Careful observations have been made, and the case is put on record in detail, trusting that it may be of some value as a contribution to the literature of the treatment of Bright's disease by operation.

I am greatly indebted to the house surgeons at the Children's House (Drs. Lowry, Chisholm and Rutherford) for the careful manner in which they have kept the records of the case from day to day, entailing not a little labor, particularly in the quantitative analyses of the urine.

NOTE.—Since this paper was written the patient has continued to improve. At this date (February 20th), sixty-two days after the last operation, he is much stronger than he was, the anemia has largely disappeared, and the albumin is now a mere trace. A very few casts are still found in the urine; there has been no return of edema or ascites.

100 College Street.

PULMONARY TUBERCULOSIS: ITS TREATMENT AND PREVENTION.*

BY A. P. PROCTER, M.D., KAMLOOPS, B.C.

Some few months ago I spoke on Pulmonary Tuberculosis at the first meeting of our newly-formed Association of British Columbia, and I chose the subject chiefly for two reasons:

1. Because of its general interest, every day bringing to our consulting-rooms some victim of the disease; and

2. Because, in coming from Kamloops in the so-called dry belt of British Columbia, where numbers of these patients are sent every year, I felt I might be able to give some of our most special experience, which might be of some small interest. I have chosen the subject to-day for the same reasons.

Acute Pulmonary Phthisis.—Of the acute forms of pulmonary tuberculosis I have little to say, because I believe I am right in saying that, with rare exceptions, from an acute outset, they progress rapidly downwards in spite of all treatment to a fatal termination. We can only alleviate and make the inevitable descent into the valley somewhat easier.

Chronic Pulmonary Phthisis.—With the chronic forms of the disease it is different. Here we can frequently not only improve but often arrest the disease. I use the word arrest rather than cure, because I have so often had impressed upon me the uncertainty of pronouncing cases as cured. Cures we know there are. The post-mortem room reveals that, but I feel that those of us who have seen case after case after long quiescence again light up and become active know something of the difficulty of pronouncing cases as cured whose symptoms have for a time disappeared.

For the best results two things must be given us:

1. That we recognize the case early.

2. That we are able to carry out the necessary treatment.

Early recognition is the great secret of a good result. Better still, if we could learn to recognize these cases even earlier, in what has been termed a "pretubercular" stage, and learn to realize almost by intuition that these are the cases slipping down the hill, ending in pulmonary tuberculosis. This may be somewhat visionary—a refinement of diagnosis hardly possible; but however that may be, the one thing that stands out of supreme importance in the successful treatment of this disease is to get

* Written for the meeting of Canadian Medical Association, Winnipeg, August 29th, 1901.

the case early, and to recognize it; and it is just here that we doctors sin against the patient, and allow him to throw away his one chance of restoration to health. I could tell you of case after case coming up to our dry climate with hopelessly advanced disease, who, on questioning as to how long they have had trouble, inform us that for months they have had cough, fever, loss of weight, the melancholy symptoms that go to make up this disease, but only within a few days of their leaving home were they able to extract a confession from their physician that their lungs were affected.

I do not believe that these medical men do not know, but I do believe that they are not honest with their patients or their patients' friends. I know that often these assurances are given out of the kindness of heart of the medical adviser, who wishes to allay the nervous fears of the patient, but I bring these facts before you, gentlemen, because I believe it to be no real kindness. We are depriving the patient of the one opportunity of being saved from the peril of this death; and I believe their one great hope of salvation rests upon our recognizing the disease when it is incipient, or, as I have said, even earlier, and not when it requires no medical man for its diagnosis.

Early diagnosis is not always easy, often it is extremely difficult. Frequently these incipient cases come to us complaining of some symptom which is apt to point us away from the lungs, and we are betrayed into carelessness, *e.g.,* anæmia or gastric disturbance. This latter I have found very common. There may be no cough, no expectoration, no fever, and only the most careful examination reveals the true nature of the case. In one patient there may be an initial hemorrhage with absolutely no physical signs. In another an insidious but progressive debility, or a very slight evening rise of temperature may long precede the development of marked physical signs. These are the cases in which much can be done, and the salvation of our patient depends upon early recognition and treatment.

Having got the case early and recognized it, we must next be able to carry out the necessary treatment, and just here we meet too often one of the sad things that we physicians have to face. We know what a patient ought to do, but we know, too, his inability from lack of means. We know that the patient who stands before us might in all likelihood be saved, but because of the want of a few necessary dollars he is condemned to stay at the old occupation, live in the same environment, hopelessly waiting until the inevitable end comes, and a valuable life is lost. I know of what I speak. I have seen the hopelessness and the sadness of it often. Surely, before long, there should be given, in our country at least, to every incipient case who is poor a

chance to get better. It seems strange that governments who are ready to spend thousands in inducing questionable immigrants to come in should be unwilling to spend anything to save the lives and usefulness of our own people.

Treatment.—In coming to the treatment of pulmonary tuberculosis we find ourselves still without a specific. While much has been done, while immense advances have been made, we have so far nothing that can be looked upon as such. Up to the present time everything claiming to be such has been tried, and, I believe, found wanting. The treatment of this disease must, therefore, not be special, but general. Our aim must *be to so increase the resistance of the tissues* of our patients by every known means that in this way we may overcome the ravages of the bacillus, and so arrest the tubercular process. With this end clearly in view the treatment may be divided into (*a*) Climatic, (*b*) Hygienic, and (*c*) Medical.

Climatic.—I have put climate first, because, in spite of the statement of some that climate does not matter, I am firmly convinced that climate does matter, that the taking of a tuberculous patient and placing him in the climate best suited to him, the climate that will have the greatest tonic action in increasing the resisting power of his tissues, is the first and most important step in all treatment. I believe, too, that for most cases altitude is highly beneficial, the rare atmosphere increasing metabolism, and calling for increased expansion of lung tissue, although in hemorrhage cases it may be advisable to move them slowly to higher levels.

The same climate, of course, does not suit all cases, as has been well pointed out by Michael Foster in a recent article, and the truth of which I have been able to verify in my own practice at Kamloops. Of course, patients with heart or kidney lesions should not be sent to higher levels. I have observed, further, that cases with pronounced nervous symptoms do not appear to do well at high altitudes. I think it may be laid down as a general rule that if any climate fails to benefit a patient in from six weeks to three months, or if a patient who has previously done well ceases to improve or begins to lose ground, a change should be made without further loss of time. During my residence in the dry belt of British Columbia I have been deeply impressed with the very real value of climate. I have a record of forty-four cases that have come to Kamloops in all stages of the disease within the past three years. There have been others, of course, but of them I have kept no record. Of these 44 cases, 15 left with the disease arrested, 13 were improved, 11 died and 5 left unimproved, a somewhat remarkable showing in a district where we have no sanatorium, and where they had little or no treatment

except that of the climate, and had to take any accommodation they could get. I might mention three cases remarkably benefited by the climate of my district.

(1) Case one was that of a naval officer who came to Kamloops with an initial hemorrhage. He recovered, and, contrary to the advice of his physician, returned to his ship. A second hemorrhage followed. He again returned to Kamloops, and again recovered, and was well as long as he remained there. He again insisted on going back to the coast, when, sometime later, he had a recurrence, and died before he could get up country.

(2) Case two was that of a young lady with marked disease of both lungs. She remained in Kamloops three years, and was, while she remained there, comparatively well. On returning to Vancouver during the rainy season she died within a month.

(3) Case three was that of a young man who was sent to Kamloops some years ago from Victoria with well-established pulmonary tuberculosis. He has completely recovered, and is wise enough to stay there. Without doubt these cases would have proved rapidly fatal had they remained where they were. Too often cases are only sent away when too far gone for anything to be of any use, and this has done more to discredit climate than anything else.

Hygienic.—The trouble too often has been that everything has been left to climate. Patients have been sent up to districts with a reputation for climate without the least regard as to whether they can be well fed and comfortably housed when they get there, two matters which I believe to be of vital importance. This has been notoriously true of my own district, where there is at present, I regret to say, little or no accommodation, and where the unfortunate arrivals spend days of anxiety hunting for someone to take them in. These people should further be placed under the eye of a reliable medical man, upon whose advice they can rely in all matters of exercise and everything that comes under the term hygiene. The ideal place for these people is, of course, the sanatorium, but unfortunately sanatoria are too few and too far away to be available for most patients. While we hope that this want may soon be filled, we have at present to deal with things as they are, and not as we could wish them. Even for the class of whom I spoke a few minutes ago, who are unable to go anywhere, who must ever remain at work, much can be done by living in the fresh air, at suitable seasons sleeping in tents, changing the occupation, although for them one must admit the prognosis is not hopeful.

Medical.—Under the head of Medical Treatment I would mention first the inoculation and serum treatments, not because I myself have had any startling results, or because I believe they

have accomplished much anywhere, but because I believe that it is along these lines that some day a cure will come. The results of the present tuberculine in some hands may have been more favorable. I noticed a statement at the late Congress of Tuberculosis held in Berlin a year or two ago "that Koch's tuberculine in its first and later forms was a specific." I have not found this to be so. I have used both Koch's later tuberculine, and also the serum, for which Maragliano claims results (obtained by immunizing horses). In no case in which I have used either of these serums have I seen the slightest benefit. In one case I believe Koch's tuberculine did harm. Some men, I know, claim cures for this treatment. I can only give you my experience. In the administration of drugs for the treatment of the disease itself I have absolutely no faith, because I have not yet found one that did the slightest good, and against the indiscriminate use of such drugs as creosote, guaiacol carbonate, iodoform and the like I cannot speak too strongly. While in some selected cases they may do no harm, in too many others their only action is the fatal disturbance of the digestion, destroying the sheet anchor of our hope, the main channel through which, by good food, we hope to build up our patient, and so increase his resistance. For general purposes I have found strychnine, from its tonic and stimulant action, the most valuable drug. For the cough I believe heroin is the least likely to disturb the other systems. Symptoms must, of course, be treated as they arise, and cannot be discussed here. The whole treatment at the present time of this disease may be summed up in the words, "Life in the fresh air of the climate best suited to the case and good food," and our endeavor must be to place our patients where they can best get this.

Prevention.—Finally, I come to the prevention of this awful scourge, which is sapping the lives of our people, depriving the world of many of its brightest lights, and which has been well called the "white plague." We live in an age of preventive medicine, an age in which our efforts are directed not only towards the cure of disease, but towards *the creation of conditions under which disease shall be impossible or rare.* How, then, can we create these conditions for the prevention of pulmonary tuberculosis? With our present knowledge of the source of danger the answer is quite clear.

Education.—First by education. We must spread as widely as possible the knowledge of the modes in which the disease is propagated, and the means by which its spread can be prevented. It seems to me, gentlemen, that in the light of the present knowledge of the disease, its infectiousness, the modes by which it is spread (facts which are known to-day to almost every reader of our daily papers), it seems to me, I say, a criminal thing that we

find these patients covering our sidewalks with their expectoration, coughing, as some one said a short time ago, in the faces of our children, infecting our hotels and dwelling-houses, and entailing untold misery and suffering upon the innocent men, women and children with whom they come in contact. In Kamloops we are fighting this battle by issuing pamphlets and striving to educate the people up to a knowledge of the danger, but even this seems hardly enough. I frequently find in visiting these patients the bedclothes, the carpet, their own clothes, spotted with their expectoration. If these people don't know better who are responsible ? Most of them consult a physician at some period of the disease, and if they go from commencement to finish without a knowledge of the danger to others, and their responsibility, are not we to blame ? I do not think this statement unwarranted. Only this month I was called to see a patient who had spent six months in one of the hospitals of our Province, and who spent all that length of time there, and left the institution without the knowledge that his sputum was infectious, and a source of danger to others, and I frequently meet cases of this kind. As to the melancholy results of this ignorance I could give you many instances of direct infection, but it is not necessary—you have all seen them.

We must not, of course, create a panic. The sufferer from pulmonary tuberculosis is not a pariah, but we must give to our people in a common sense way an exact knowledge of where the danger lies and the method of prevention.

Legislation.—For those who refuse to take the necessary precautions, even when they do know, we must have laws to make them. I am glad to say that in British Columbia, through the efforts of Dr. Fagan, our Secretary of the Provincial Board of Health, we have just secured an amendment to the Health Act. By this amendment promiscuous expectoration has become an offence. Notification of all cases of tuberculosis is compulsory, and Medical Health Officers are empowered to order the fumigation of all premises occupied by tubercular patients and the disinfection of their clothing, and for these regulations I think Dr. Fagan deserves the thanks of the Province.

Sanitary Measures.—As the tubercle bacillus hates fresh air and sunlight, we must make our homes more sanitary. Close filthy, overcrowded dwellings and districts of the poor must go if this disease is to be successfully fought. Our workshops, offices, public buildings and schools must be made to answer every sanitary requirement. Even our dress will stand some reformation, and should at least be prevented from collecting the filth of the sidewalk.

Sanatoria.—We must urge upon our Governments and phil-

anthropists the necessity of sanatoria in suitable districts where incipient cases can be treated, and special hospitals or homes where advanced cases can be received and cared for, and so prevented from going through our streets and houses spreading the infection broadcast. At present nothing is being done in this direction in many of our Provinces except to send these cases up to some place like Kamloops, where the climate is known to be favorable, and where there is absolutely no accommodation for them, where the hotels and boarding-houses do not want them, and where everyone is afraid of them. It seems an extraordinary thing that where such elaborate, and, of course, proper precautions are taken to guard against smallpox, and where almost a state of panic exists where a case appears, this awful plague, which is killing at least a thousand to every one victim of smallpox, is allowed to spread almost undisturbed. Surely we are not alive to this question. I would especially appeal for the consumptive poor, for his own sake and for the cause of prevention. The wealthy patient can get all the attention he needs; he can go where he pleases, and is not likely to be the same menace to others. The consumptive poor must stay where he is, in the most unsanitary surroundings, a source of grave danger to those around him, and with no hope for himself. I believe it is just as right for our Governments to take charge of the consumptive poor as it is to care for the insane. As a last means of prevention I have only to urge the frequent inspection by competent men the sources from which our people derive their meat and milk supply. By these and every other known means we must fight the battle against tuberculosis until, not all at once (we cannot hope for that), but little by little, working on with infinite patience we shall see the battle won, and the conditions under which pulmonary tuberculosis flourishes no longer exist, and the disease, by direct infection at least, is impossible or rare.

AUTHORITIES.—Percy Kidd, in "Abbott's System of Medicine"; Michael Foster, on 'Climate"; *British Medical Journal.*

TREATMENT OF TUBERCULOUS AFFECTIONS OF BONES AND JOINTS.

BY CLARENCE L. STARR, M.D.

Orthopedic Surgeon to Hospital for Sick Children; Demonstrator of Clinical Surgery Toronto University; Registrar Toronto General Hospital..

In the consideration of the treatment of tuberculous disease of the bones and joints, one most naturally divides it into constitutional and local.

That surgeons, especially, are too prone to forget the constitutional treatment of bone tuberculosis is demonstrated by the number of cases, in hospitals and elsewhere, one sees where the treatment is entirely local. No doubt there is a tendency, as in other forms of tuberculosis, to spontaneous recovery in proper environment, but great assistance may be rendered by the same general treatment that is carried out for tuberculous disease in other parts. This may be conveniently divided into *supporting* treatment, *i.e.*, that which will assist the tissues to successfully resist the continuance of the disease, and the *antiseptic*, *i.e.*, that which, if not having a direct action on the bacilli themselves, will at least render the tissues as uncomfortable a lodging-place as possible for them.

Under the head of the supporting treatment may be considered:

1. *Fresh Air.*—Life in the open, when possible, is as essential in this as in other forms of the disease. For this reason, it is almost absolutely essential that any hospital which attempts the treatment of this class of cases should have a country branch, where patients may be sent. Of course, among wealthy patients a residence in the country is easily provided. When possible, local treatment should be of such a character as to allow patients to get into the open air as much as possible.

2. *Dietetic.*—This differs in no respect from that in treatment of the lungs. The patient should have an abundance of easily-assimilated food.

3. *Tonics.*—Iron, especially the syrup of the iodide, cod liver oil and hypophosphites or glycerophosphites have been found beneficial.

In the attempt to render the tissues an inhospitable lodging-place for bacilli, creosote and guaiacol may be given, or iodine in the form of iodide of potash or the iodide of iron, or even iodoform in capsules in small doses.

The *local* treatment varies somewhat with the pathological condition.

1. First, the disease may be a caseating, degenerative osteomyelitis, without any infection of synovial or peri-articular structures. This, no doubt, is the method of starting of the majority of cases, but it may be exceedingly difficult to diagnose until the periosteal or synovial tissues are involved. The treatment in such cases may be expectant or radical. The expectant plan is to give the part

rest by fixation, or extension, or both. The radical, or operative, is, no doubt, the ideal treatment, in that it endeavors to eradicate the disease. In it one endeavors to locate the focus of disease, and, after raising a flap of the soft structures and periosteum, if free from disease, to pass a chisel or scoop into the softened mass and clean it out until the wall is firm and apparently healthy. The cavity may then be swabbed with pure carbolic acid and the wound entirely closed, allowing the cavity to fill up with blood-clot, which later will become organized.

2. The disease may affect the synovial membrane alone. This, in my experience, comprises comparatively a small number, although some authorities consider it to form almost fifty per cent. of all cases. The palliative or expectant treatment, as a rule, is more satisfactory in this form than in any other. The joint should be fixed in plaster-of-Paris, on a splint, such as the Thomas knee splint, or in a leather or poro plastic dressing Extension should not be indiscriminately used, as, no doubt, by stretching and irritating already inflamed ligaments the disease may be hastened rather than quieted. Particularly is this the case in disease of the knee joint. If the synovial thickening continues to increase, an arthrectomy is usually advisable to prevent the infection of the bones entering into the formation of the joint.

3. In those cases in which the focus of disease originates in the bone, it usually extends into the synovial and articular structures before it is detected. In this class, after a period in which there may be no symptoms except a little aching in the neighborhood of the joint, with slight lameness, the condition suddenly becomes acute, with night cries and extreme tenderness; with this comes limitation of motion of joint, not from ankylosis, but from tonic contraction or spasm of the muscles. These cases undoubtedly do best by a conservative plan of treatment. The night cries and extreme tenderness may be relieved by extension, and the fixation of the joint will render the patient almost free from pain.

Some misunderstanding exists as to the object of extension. It is generally accepted that with any bearable amount of extension the joint surfaces cannot be separated to any appreciable extent; nor is this necessary. The object of extension is to overcome the condition of tonic contraction of the muscles and prevent the inflamed surfaces being crowded together by the contraction. A comparatively light weight will accomplish this when continued for twenty-four hours. Sometimes too heavy weights are applied, and, after a first relief of contraction, pain returns from a stretching of the ligaments, and often the cause of the return of the pain is mistaken and the weight increased, when relief would be obtained by diminishing the weight.

4. Any of the foregoing conditions may be accomplished by an abscess into the soft tissues around the joint. A tuberculous abscess is really a cyst, and not at all comparable to the ordinary surgical abscess. Hence the surgical adage that "wherever pus

exists it should be evacuated" does not hold true in this case. Various methods have been advocated for treatment of such abscesses.

The Expectant.—The contents of some abscesses are absorbed without treatment when the joint is properly protected. Where the abscess is gradually subsiding and giving no symptoms, it may be left alone.

Aspiration will not often yield satisfactory results, for all who have tried this plan know how difficult it is to prevent plugging of the needle with caseous material, and in the end only the fluid contents of the sac have been removed. There is also a danger of infecting the track of the needle with tuberculous material, and ultimately, in a great many cases, a sinus opens in the course of the needle track.

Aspiration with injection of antiseptics into the cavity cannot be looked upon as much more successful, as no injection that it is possible safely to inject into a closed cavity will affect the wall of a tuberculous abscess, and it is from the wall that a continuance of the trouble comes.

Incision with drainage is the most common form advocated in the bulk of surgical text-books, and a most dangerous one it is. Drainage in nearly all cases means a mixed infection of the cavity in a short time, and mixed infection means hectic fever, amyloid changes, and general decline of health in the bulk of instances.

Incision with scraping of abscess wall is most likely to prove efficient. After thorough curetting the cavity should be swabbed out with pure carbolic acid and the wound closed. Healing will take place usually by primary union, and, if firm pressure is applied over a bulky dressing, the walls will glue together and the obliteration of the cavity results.

Excision of the cyst wall complete has been advocated by Mr. Watson Cheyne, and is an ideal method when applicable: but, unfortunately, its application is limited to a small number of locations.

5. When an abscess is allowed to spontaneously evacuate its contents, or is incised and drained, within a comparatively short time, the cavity becomes septic from introduction of other germs, particularly the staphylococci and streptococci. A septic sinus results, which often resists all treatment by injection of caustics for months or even years. For this reason an abscess should never be left until the skin becomes reddened and infiltrated with tuberculous material, but should be dealt with earlier in some of the ways suggested.

When a septic sinus does exist, it should be swabbed out with pure carbolic acid to prevent infection of the fresh-cut surface, and then completely dissected out whenever possible. If from its location it is not possible to do this, it should be thoroughly scraped, so as to remove the entire wall, and the bone focus removed, if within reach. The wound may then be closed, or drained with small strips of gauze for twenty-four hours.

Public Health and Hygiene.

. . . IN CHARGE OF . . .

J. J. CASSIDY, M.D., AND E. H. ADAMS, M.D.

THE LIQUOR ACT, 1902.

As stated by Premier Ross, in his address in the Legislature, when introducing the Act respecting the sale of intoxicating liquors, the measure is identical with the Manitoba bill, with the general terms of which the public are fairly familiar. The following summary of the bill, however, may be of interest, now that the question is before the people of the Province in concrete form. In all, the bill, which may be cited as "The Liquor Act, 1902," contains 223 clauses, 101 of which are devoted to the usual regulations regarding voting, duties of returning officers, etc. These are followed by a number of schedules giving the forms of documents, oaths, etc., usually used in the taking of votes, and the applications of druggists, ministers and others who, upon the Act coming into force, shall be entitled to have liquor upon their premises, under certain conditions and for specifically named purposes. It is provided that the vote shall be taken on October 14th, the ballot-paper bearing the simple, straightforward question, "Are you in favor of bringing into force the Liquor Act, 1902?" Voters will be only those who were entitled to vote at the election which will precede the referendum, and the hours of voting will be the same as in the election, namely, 9 a.m. to 5 p.m.

In case a majority of the votes cast on the question are in the affirmative, and that the number of electors voting on the question in the affirmative exceeds one-half of the number of electors who voted at the general election, the Act shall be brought into force by proclamation from and after May 1st, 1904.

The Prohibitory Clauses.

It is provided in sections 151 and 152 that no person shall, within the Province of Ontario by himself, his clerk, servant or agent, expose or keep for sale, directly or indirectly, or upon any pretence, or upon any device, sell or barter, or in consideration of the purchase or transfer of any property or thing, or at the time of the transfer of any property or thing, give to any other person any liquor without having first obtained a druggist's wholesale license or a druggist's retail license under this Act authorizing him so to do, and then only as authorized by such license and as prescribed by this Act.

No person within the Province of Ontario by himself, his clerk, servant or agent, shall have, or keep, or give liquor in any place whatsoever, other than in the private dwelling-house in which he resides, without having first obtained a druggist's wholesale license or a druggist's retail license under this Act authorizing him so to do, and then only as authorized by such license. This section shall not prevent any person engaged in mechanical business, or in scientific pursuits, from having in his possession alcohol for mechanical or scientific purposes, as the case may be, in a quantity not exceeding ten gallons at any one time, but the alcohol used in the preservation of specimens for scientific purposes shall not be included in said ten gallons, or to prevent any clergyman from having in his possession a quantity of wine for sacramental purposes not exceeding two gallons at any one time; but such person in this sub-section mentioned so having in his possession such liquor shall not use or consume, or allow to be used or consumed, any of said liquor as a beverage.

For the Sick.

Nothing in this section shall prevent a public hospital from having liquor in its possession for the use of the patients in the hospital, but such liquor shall not be consumed by persons other than a patient in the hospital, and then only when prescribed for or administered by a physician.

Nothing herein contained shall prevent a sick person from having in his room where he sleeps the liquor prescribed for him by a physician. But no liquor so prescribed shall be consumed or drunk by any other person than the sick person.

Strict interpretation is put upon the words "wholesale and retail druggists," and "private dwelling-house."

Clubs Expressly Barred.

It is expressly provided that clubs, associations or unincorporated societies may not use, barter or sell liquor on their premises, and the same rule applies to boarding-houses or lodging-houses, where there are more than three lodgers other than members of the family. Brewers and distillers licensed by the Dominion of Canada for the manufacture of liquor shall not be prevented from keeping or having liquor manufactured by them, providing the building containing it does not communicate with any building which under the Act may not contain liquor. Liquor, however, may be held for export sale. "No person shall use or consume liquor in the Province purchased and received from any person within the Province, unless it be purchased and received from a licensee. This section shall not apply to any person who within a private dwelling-house innocently uses or consumes liquor not thus purchased and received."

Records of Sales.

Records must be kept by licensees of all liquors sold, failure to make such record to be *prima facie* evidence of illegal sale. Liquor shall not be consumed upon a licensed premises or in a distillery or brewery. Provisions are made for the issuance of prescriptions in cases of need by physicians, dentists and veterinary surgeons, in the latter cases applying to dumb animals and limited to one gallon.

Holders of a druggist's retail license may sell only for medicinal purposes, and only on *bona fide* prescription: To dentists one pint, veterinary surgeons two gallons, and to clergymen, wine for sacramental purposes.

Penalties and Enforcement.

The penalties provided for violations are severe, ranging in fines from $50 to $1,000, and imprisonment from three to twelve months. It is provided that "the duty of seeing that the provisions of the Act are complied with and of enforcing the same, and of prosecuting persons offending against such provisions, shall devolve upon the inspectors appointed pursuant to this Act. But nothing herein contained shall prevent or be construed to prevent any person from laying an information or prosecuting in respect of any offence or supposed offence against the provisions of this Act, and the Department of the Attorney-General shall not prevent any such prosecutions." Provision is made for a chief inspector residing in Toronto, for a local inspector for each electoral division, and such further inspectors as may be necessary. Every inspector and every policeman or constable shall be deemed to be within the provisions of this Act, and where information is given to such that there is cause to suspect that some person is violating the provisions of this Act, it shall be his duty to make diligent inquiry into the truth of such information, and to enter complaint, in his own name, before the proper County Court Judge, Magistrate or Justice or Justices of the Peace, without communicating the name of the person giving such information.

Witnesses must answer questions in prosecutions, and the burden of proving the right to have, or keep, or sell, or give liquor shall be on the person accused of improperly or unlawfully having or keeping, or selling, or giving such liquor.—*The Globe*, February 13th, 1902.

Dr. Gregory's Semi-Centennial.—Dr. Elisha H. Gregory, St. Louis, professor of principles and practice of surgery and clinical surgery in Washington University, ended his fiftieth year of lectures at that institution, January 17th. At the close of his lecture he was given a large bouquet of roses and violets, and eulogistic addresses were made by the chancellor and members of the faculty.

Selected Articles.

THYROID MEDICATION IN THE TREATMENT OF TROPHIC TROUBLES OF THE EXTREMITIES.

BY DR. PAULESCO.

In January, 1899, M. Lancereaux communicated to the Academy of Medicine some remarkable results which he had obtained from thyroid medication in the treatment of vaso-motor pneumonia and trophic disorders which constitute the neuropathic condition known under the name of herpetism or arthritism. Since then this treatment has been employed at the Hospital of Perpetual Relief in a large number of cases. M. Lancereaux has presented to the Academy a number of patients thus treated, and has demonstrated at the same time the efficacy of iodothyrine in commencing arterio-sclerosis in cases of chronic rheumatism, scleroderma, etc.

I would report here some facts regarding trophic troubles of the extremities which have been rapidly cured under the influence of this medicament. These facts seem to me to have a certain amount of importance from a theoretic point of view. It is from this standpoint alone that they are to be considered.

Case I.—M. E., aged 68, had had typhoid at the age of 17 years, malarial fever at 32, scarlatina at 36, bronchitis at 46, and probably pneumonia at the age of sixty years. Aside from these diseases he has always been healthy. He has never been addicted to the use of alcohol. He was a worker in bronze since the age of 13 years, but since his 60th year he has been a book-dealer. He gives no history of rheumatism or neuralgia. Since six or seven years he has been obliged to get up at night to pass his water. He was much troubled with chilblains of the hands and feet during childhood, and in the last two or three years they have again appeared. On February, 1900, the patient began to complain of pains about the last two toes of the right foot. These pains were lancinating, occurred in paroxysms every three or four hours, and lasted from one-half to one hour. His sufferings were so acute as to cause him to cry out. On March 4th it was found that the little toe had become black, and the patient being much frightened went to the Hospital Laennec. March 12th he was sent to the Hospital of Perpetual Relief, and admitted to the service of M. Lancereaux. At that time the little toe of the right foot was absolutely black

and cold. It was the site of a small superficial eschar situated upon the internal aspect. The toe was surrounded by a violaceous area which took in the fourth toe, the external border and planta surface of the foot over an area of five centimeters in circumference. All this violaceous area was the site of a very intense hyperesthesia. The least touch caused the patient to cry out, and the pains thus provoked persisted during several minutes. The little toe did not appear to have lost its sensibility; as a matter of fact, on touching it lightly with the point of a pencil the patient experienced very violent suffering. On the night of March 12th the patient received 15 grains of iodothyrine and 45 grains of antipyrine. As he also seemed to suffer greatly, one-third of a grain of morphia was administered subcutaneously. The patient, who previously had had each night two or three paroxysms of pain, passed a good night, without the least distress. March 13th, the affected foot was enveloped in a moist compress, but the contact of the dressing with the diseased area produced such violent pains that it was found necessary to remove it. The patient was given 30 grains of iodothyrine and 45 grains of antipyrine, and at night one-sixth grain of morphia was injected. March 14th, since yesterday the patient has had no new attacks of pain. The treatment consisted of iodothyrine 45 grains, and antipyrine 45 grains: no morphia. March 15th, the little toe of the right foot was still black, the violaceous zone had diminished in size. The hyperesthesia was also much less marked, being now localized to the surface of the toe and the planta surface of the foot, where it occupied an area of the size of a two-franc piece. At this place the patient experienced a violent pain at the least touch; a slight pricking with the point of a pin was absolutely unbearable. The eschar on the internal aspect of the toe had become transformed into a small superficial and discharging ulcer; otherwise the patient experienced no trouble; no neuralgia along the nerves of the leg. The man was robust, and of good constitution and color. His heart was slightly enlarged, but auscultation revealed nothing abnormal. The radial arteries were quite hard, slightly tortuous: strong pulse, regular, and seventy-two beats to the minute. The other organs were normal. The urine revealed nothing abnormal. March 16th, the blackish discoloration of the little toe assumed a reddish tint; the hyperesthesia had been considerably diminished: treatment, 60 grains iodothyrine. March 17th, the violaceous color of the area had completely disappeared, althought it was still a little more reddish than the neighboring parts. The small ulcer had cicatrized; hyperesthesia had completely vanished, and pricking with a pin provoked only normal sensations. Treatment, 60 grains of iodothyrine. March 18th, the morbid phenomena completely disappeared. The thyroid medication, however, was still continued in doses of 60 grains daily until March 21st, and then gradually diminished to seven grains daily. March 18th, the patient left the hospital and returned to work. It is to be noted

that although he took 60 grains of iodothyrine daily he presented no signs of intolerance. His pulse never exceeded 92 to the minute. April 5th, the patient returned with symptoms similar to those that he had presented at his first admission. The pains were intense, lancinating and occurred in paroxysms. The toe had a blackish discoloration, and the hyperesthesia was marked. The thyroid treatment was again resorted to, and two days later all his troubles had completely vanished. Nevertheless the epidermis of the little toe began to exfoliate, being replaced by a new layer, delicate, but normal. For the sake of precaution the patient remained in the hospital until May 6th, and during this time he took daily 45 grains of iodothyrine. He then returned to his work, and the trouble has not reappeared.

To this observation we add a number of others that are confirmatory.

Case 2.—P. C., domestic, aged 64 years, was sent to us by Dr. Durand, November 20th, 1899, for the treatment of trophic trouble of the extremities. The patient presented upon the nose a dry black crust of the size of a one-franc piece. This was surrounded by a violaceous zone, nearly black, and one-eighth to one-sixth inch in width. Furthermore, the anterior extremity of the left thumb was livid, and upon the lobule of the left ear there were violaceous spots. The patient was placed under large doses of iodothyrine, commencing with fifteen grains and increasing it by one grain until a dose of 45 grains had been reached. Two days later the livid spots upon the ear and upon the thumb and the violaceous zone which surrounded the crust upon the nose had disappeared. The eschar had become detached in little fragments, and the cicatrization was complete at the end of eight days.

Case 3.—M. M., aged 27 years, who had been treated several times in the hospital for arterial aplasia and double phlebitis of the leg, was admitted March 25th, 1900, with atrophic trouble of the left leg. Upon the inner aspect of the leg, which was very edematous, at the level of the lower third, there was a blackish crust, dry, and of the circumference of a five-franc piece, the periphery being much congested, and having a violaceous hue. Besides rest, the patient was given iodothyrine, 7 grains for a number of days. Under this treatment the crusts become detached, and on April 4th cicatrization was complete.

Case 4.—C. P., aged 36 years, had suffered with chronic rheumatism, gout, general arterio-sclerosis with herpetrophy of the heart, and fibrous changes in the kidney. After being subjected to thyroid treatment this condition improved materially. He was exhibited by M. Lancereaux at a meeting of the Faculty of Medicine, and I reproduce here the context of his communication:

"Not only have the arteries regained, partially at least, their elasticity, but a greater part of the trophic troubles which the patient presented at the time of his entrance into the hospital have completely vanished as if by enchantment. The large osteophytes

which at the time of his admission existed over the interphalangeal articulations of the index and middle fingers have been absorbed and have completely disappeared. The nails of the toes present curious and very interesting phenomena. For more than two years these nails have been very much thickened, irregular, striated, and of a brownish color like the bark of an old tree. Since he has taken iodothyrine, however, they have resumed their normal appearance in such a way that actually one can see on the big toe that the anterior half of the nail is very thick, rugous and brownish, while the posterior half is smooth, rosy, and presents perfectly normal appearances."

Case 5.—B. J., aged 46, family and personal history uneventful. About July, 1899, the patient noticed that the nails were becoming thick and taking on a greyish tint. They then separated very nearly their entire extent, and those of the two little fingers and toes dropped off completely. She consulted the out-door department on October 15th, and was given iodothyrine; at first 7 grains daily, then 10 grains and finally 15 grains. Fifteen days after the commencement of treatment it could be seen that the nails were growing out distinctly at the base. One month later the nail consisted of two parts, a superior normal portion, and an inferior portion, which was thick, greyish and detached. Those which had been exfoliated were growing out again. March 30th, 1900, the nails were found to be perfectly normal, except that of the middle finger of the right hand, which, although having a normal appearance, presented a slight detachment.

These five patients present trophic troubles of different nature, depending manifestly upon the local disorders of innervation and insufficient functioning of the nervous apparatus presiding over the circulation and nutrition of the affected parts. These troubles, which quite rapidly disappeared under the influence of iodothyrine, were not the result of an alteration of the thyroid gland, since they were not accompanied by any of the various characteristic signs which demonstrate clinically insufficient function of this gland. It is impossible to understand the manner in which iodothyrine acts in these cases if one admits the antitoxin theory, which at the present time is most popular, and according to which the thyroid glands secret a substance destined to neutralize certain poisons which originate in the body. This is so for several reasons, of which the chief is that the phenomena presented by these patients did not resemble in any way the manifestations of a toxemia, whatever be its nature. These clinical observations and experimental facts have led us, on the other hand, to conclude that the product of secretion of the thyroid glands serves for the nutrition and function of the nervous system. The facts presented should be interpreted from this point of view.—*Journal de Medecine Interne.*

THE TREATMENT OF FRACTURES OF THE FEMUR WITH THE AMBULATORY PNEUMATIC SPLINT.*

BY WALTER B. METCALFE, M.D., CHICAGO.

The treatment of fractures of the femur has from time immemorial been an ungovernable condition, never fully under the control of the surgeon. The condition has been a source of anxiety to the surgeon, and not an infrequent source of deformity to the patient. The injury has invariably resulted in shortening, which varied in amount from three-fourths of an inch to three and one-half inches, and in rare cases even more, with an average disability of twelve weeks being the time offered by the Standard Accident Insurance Company as a cash settlement at the time of the accident. Heilfrich, in his book on fractures published in 1900, gives an average time for healing as thirteen and one-half weeks, with 34 per cent. able to work and 66 per cent. unable to work. In view of these facts I report the following case:

April 6th, 1901, Mr. A. G. B., age 34, married, weight 205 pounds, height 6 feet and 1 inch, sustained a fracture of the left femur while bowling, caused by muscular contraction in the effort to throw the ball. The fracture was complete, there being free mobility at the point of injury. Little care was used in moving him to his home, and as a result the tissues surrounding the fracture were very much mutilated. The ecchymosis and extravasation that followed involved the limb from below the knee to the crest of the ilium. Forty-eight hours after the accident the circumference of the injured limb at the junction of the middle and upper third was fourteen inches more than the right one at the same point. The amount of fluid at this time about the knee joint was enormous. In fact, the whole picture of the injured limb at this time was of as severe an injury as I have ever seen of a thigh, barring one requiring an amputation. Dr. Buford, who examined the limb at this time, confirmed the severity of the injury. On the third day after the accident, with the assistance of Dr. J. G. Hughes, a pneumatic splint was applied. The limb was measured, and showed one and one-half inches of shortening. It was impossible at this time to get complete extension because of the great swelling. A gentle massage of the limb was kept up at frequent intervals, which was easily done whilst the splint was on. By the fifth day the swelling had subsided enough so that the foot was brought down in perfect position.

* Read at the Fifty-second Annual Meeting of the American Medical Association, in the Section on Surgery and Anatomy, and approved for publication by the Executive Committee of the Section: W. J. Mayo, H. O. Walker, and A. J. Ochsner.

Twenty-four hours after the application of the splint, the patient was free from pain, and could move himself about in bed with perfect ease. Two weeks after the application of the splint he was about the house. The next week he was going about the street, and in less than four weeks after the application of the splint he was at his office; he was sleeping without his splint, and was able to get into a bath-tub unassisted. Measurements made by Dr. W. H. Vary, Dr. J. G. Hughes, Dr. Ochsner, and the author, show that there is no shortening in the injured limb.

The following advantages are gained from experience with the pneumatic splint: (1) It can be applied without assistance. (2) Fractures can be reduced without an anesthetic. (3) Patient can move about freely in bed after its application. (4) Gives free access to compound fractures without removal of splint. (5) Reduces the time of disability over one-half by American report. (6) Prevents shortening. (7) Prevents angular deformity. (8) Changes our pathology. (9) No complete circular constriction to impair the blood supply to the limb. (10) Massage can be given to the entire limb without removing the splint.

THE AMERICAN CONGRESS OF TUBERCULOSIS.

THE third annual session of this Congress will be held on May 14th, 15th and 16th, 1902, at the Hotel Majestic, 72nd Street and Central Park, West, in the City of New York, in joint session with the Medico-Legal Society. There will be two sessions each day and no evening session, except on the 15th, when the banquet will be given. This will enable delegates from distant States and countries to enjoy the amusements and attractions of the city. Arrangements will be made with railway companies for a reduced rate of fare, the details of which will be announced to the delegates. In addition to the Vice-Presidents chosen at the sessions of May 15th and 16th, 1901, the Executive Committee have authorized the appointment of three Vice-Presidents from each State, Country or Province, and an Honorary Vice-President from each. Under this authorization about seventy additional Vice-Presidents have been named who have already accepted, but in some of the Countries and States all of them have not yet been named. Of the Honorary Vice-Presidents all but two of the Provinces of the Dominion of Canada have accepted already, and six from Governments. Among those who have accepted from the American States, already, five are Governors of States and other high public officers. When completed, these officials will be all duly announced. There will be, aside from all papers of a miscellaneous nature, four symposiums, arranged each to occupy one session of the body, viz.: (1) Preventative Legislation, Embracing the Social, Municipal and

State Aspects of Tuberculosis. (What aid should be expected from the State in the cure and prevention of tuberculosis, and how shall this be secured?) (2) Tuberculosis in its Pathological and Bacteriological Aspects. (3) The Medical and Surgical Aspects of Tuberculosis. (Embracing Sanatoria and Climatic Conditions, Light and Electricity.) (4) The Veterinary Aspects of Tuberculosis. These will each be in charge of a committee who will arrange for the opening papers, and for those who participate. These committees will be arranged with great care and duly announced. A large number of the enrolled members have already announced the titles of their papers for the session of 1902, and a still larger number have sent their names to the Secretary, who will contribute papers and send the titles later. The Presidents of the Central and South American Republics, and all Governments on the American Continents, have been invited to send delegates and to name suitable persons to act as Vice-Presidents, and their men of Science requested to enrol and contribute to the work of the Congress, many of whom are already represented by delegates. No attempt will be made to classify and arrange these until the programme can be announced, but, if thought advisable, a preliminary announcement will be made, one month before the annual meeting, of the titles of papers and names of authors. Those who were named as delegates by the Governors of States, or Medical or Scientific bodies for the Session of 1901, are cordially invited to enrol for the Congress of 1902. The enrolling fee will be $3.00, which will entitle the member to the Bulletin of the Congress of 1902. All medical bodies, and scientific or legal associations, or associations of the Bar, are invited to send delegates to the Congress, who will be given the rights of the floor and a vote at the Session. There will be named a local committee for the Session, of strong names, who will do everything in its power to make the occasion one of great interest and pleasure to enrolled members. The enrolment is open to members of both professions in every State, County or Province on the continents of America, in the western hemisphere, and in American waters, and papers are promised and will be solicited from all who are interested in foreign countries. For details and enrolment, address CLARK BELL, Secretary, 39 Broadway, New York City.

Utica Isolation Hospital.—A bill has been introduced appropriating $5,000 for the erection of a hospital for contagious diseases in Utica, N.Y.

Dr. Adolf Meyer, instructor at Clark University, and head pathologist at the Massachusetts Insane Hospital, at Lake Quinsigamond, has accepted the position of head pathologist of the New York Pathological Institute, in New York City, to succeed Dr. Ira Van Giesen, resigned.

The Canadian Journal of Medicine and Surgery

J. J. CASSIDY, M.D.,
EDITOR,
69 BLOOR STREET EAST, TORONTO.

W. A. YOUNG, M.D., L.R.C.P. LOND.,
GENERAL MANAGER,
145 COLLEGE STREET, TORONTO.

Surgery—BRUCE L. RIORDAN, M.D., C.M., McGill University; M.D. University of Toronto; Surgeon Toronto General Hospital; Surgeon Grand Trunk R.R.; Consulting Surgeon Toronto Home for Incurables; Pension Examiner United States Government; and F. N. G. STARR, M.B., Toronto, Associate Professor of Clinical Surgery, Lecturer and Demonstrator in Anatomy, Toronto University; Surgeon to the Out-Door Department Toronto General Hospital and Hospital for Sick Children.

Clinical Surgery—ALEX. PRIMROSE, M.B., C.M. Edinburgh University; Professor of Anatomy and Director of the Anatomical Department, Toronto University; Associate Professor of Clinical Surgery, Toronto University; Secretary Medical Faculty, Toronto University.

Orthopedic Surgery—B. E. MCKENZIE, B.A., M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Surgeon to the Out-Patient Department, Toronto General Hospital; Assistant Professor of Clinical Surgery, Ontario Medical College for Women; Member of the American Orthopedic Association; and H. P. H. GALLOWAY, M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Orthopedic Surgeon, Toronto Western Hospital; Member of the American Orthopedic Association.

Oral Surgery—E. H. ADAMS, M.D., D.D.S., Toronto.

Surgical Pathology—T. H. MANLEY, M.D., New York, Visiting Surgeon to Harlem Hospital, Professor of Surgery, New York School of Clinical Medicine, New York, etc., etc.

Gynecology and Obstetrics—GEO. T. MCKEOUGH, M.D., M.R.C.S. Eng., Chatham, Ont.; and J. H. LOWE, M.D., Newmarket, Ont.

Medical Jurisprudence and Toxicology—ARTHUR JUKES JOHNSON, M.B., M.R.C.S. Eng.; Coroner County of York; Surgeon Toronto Railway Co., Toronto; W. A. YOUNG, M.D., L.R.C.P. Lond.; Coroner County of York, Toronto.

Pharmacology and Therapeutics—A. J. HARRINGTON, M.D., M.R.C.S. Eng., Toronto.

Medicine—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon, Toronto General Hospital; and W. J. WILSON, M.D., Toronto, Physician Toronto Western Hospital.

Clinical Medicine—ALEXANDER MCPHEDRAN, M.D., Professor of Medicine and Clinical Medicine Toronto University; Physician Toronto General Hospital, St. Michael's Hospital, and Victoria Hospital for Sick Children.

Mental Diseases—EZRA H. STAFFORD, M.D., Toronto, Resident Physician Toronto Asylum for the Insane.

Public Health and Hygiene—J. J. CASSIDY, M.D., Toronto Member Ontario Provincial Board of Health; Consulting Surgeon Toronto General Hospital; and E. H. ADAMS, M.D., Toronto.

Physiology—A. B. EADIE, M.D., Toronto, Professor of Physiology Woman's Medical College, Toronto.

Pediatrics—AUGUSTA STOWE GULLEN, M.D., Toronto, Professor of Diseases of Children Woman's Medical College, Toronto.

Pathology—W. H. PEPLER, M.D., C.M., Trinity University; Pathologist Hospital for Sick Children, Toronto; Demonstrator of Pathology Trinity Medical College; Physician to Outdoor Department Toronto General Hospital; Surgeon Canadian Pacific R.R., Toronto; and J. J. MACKENZIE, B.A., M.B., Professor of Pathology and Bacteriology, Toronto University Medical Faculty.

Ophthalmology and Otology—J. M. MACCALLUM, M.D., Toronto, Assistant Physician Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

Laryngology and Rhinology—J. D. THORBURN, M.D., Toronto, Laryngologist and Rhinologist, Toronto General Hospital.

Address all Communications, Correspondence, Books, Matter Regarding Advertising, and make all Cheques, Drafts and Post-office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College St., Toronto, Canada.

Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the fifteenth of the month previous to publication.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month.

VOL. XI. TORONTO, MARCH, 1902. NO. 3.

Editorials.

THE PROHIBITION BILL.

SINCE the introduction of the Liquor Act, 1902, into the Ontario Legislature, *vide* p. 163, the question of Provincial prohibition has been briskly discussed. To judge by some of the letters one reads in the newspapers there is a great outcry against the liquor traffic in Ontario. We do not sympathize with the teachings or methods of the extreme prohibitionists. Their chief capital is *words, words;* but their readiness to destroy, without compensation, the wealth of citizens, as law-abiding as themselves, proves that they

are unsafe guides to the electors. They preach a heaven-sent message, yet their teachings would convict the Founder of Christianity of sin. Instead of turning water into wine at the marriage feast of Cana, He should, if their views must prevail among Christians, have begun then and there the campaign for prohibition. He should have attacked, in a ringing speech, the debauchery, the wantonness and wine-bibbing of the ancient world, and searched the soul of his host by remarks about the silliness of a young married man making his friends tipsy, and the wisdom of storing up shekels for a rainy day, instead of gratifying the palates of his guests with mocking wine.

Although a majority of votes in Ontario may be secured for prohibition, if a referendum is voted upon, it does not follow that provincial prohibition is practicable. Many men would vote for prohibition who would not walk across the street to prevent the illicit sale of liquor. More men—the majority, we believe, of the taxpayers—would vote for a prohibitory measure if the machinery for its enforcement, viz., constables, inspectors, detectives *et hoc genus omne*, had to be supplied out of provincial funds. Once they find that the municipality in which their property is situated has to shoulder the burden of paying for the machinery which will make a Prohibition Act workable, they will either not vote for it, or, if the measure passes, will allow it to die from lack of support.

Some persons think it possible that physicians may be financially interested in the question of prohibition, inasmuch as, if such a measure were to pass, the sale of liquors by druggists would be largely made on their prescriptions. Now, man for man, physicians are just as beneficent as any other class of men in this Province. Unlike the disciples of Plato, their time is not taken up with the uttering of words, words :-but rather are they true exponents of the philosophy of Bacon, whose humble aim was to make men comfortable. It is manifestly unfair to place such men in positions, where they are not called upon to diagnose diseases and treat them ; but to judge between truth and falsehood, between whim and necessity, between a lawful use and a depraved appetite. If a man buys liquor in Ontario to-day, he does so because he wants it, and he does not have to invent a story to throw dust in the eyes of the seller. Should the Liquor Act of 1902 become law, hypocrisy will become the rule in the purchase and sale of intoxicants in Ontario.

Physicians should not be made scapegoats to bear the evils of a Liquor Act passed at the beck and call of moral perfectionists. In ordinary practice they see enough of the seamy side of life, without being compelled by law to choose between the violation of the Liquor Act and the loss of professional patronage. Why place the physician in the judge's seat without the judge's salary and honorable independence?

Another solution may be offered. The State dispensary system is favored by many persons, because it lessens the more flagrant evils of the license system without causing a loss of revenue to the State.

The State dispensary system is now in operation in South Carolina. All bar-rooms are closed and the liquor is sold in a package to the purchaser at a store kept by the Government, and no liquor is consumed on the premises. The social element of the bar-room is therefore eliminated, and the purchaser must carry off the liquor to his home or lodgings, or, if pressed for time, has to retreat to the nearest lane or passage and help himself or treat his friends without ceremony. It is said that the accumulation of paper wrappings in lanes near such a store is quite remarkable. The profits under this system naturally belong to the Government, and would, no doubt, be considerable. It is possible that if such a plan were adopted in Ontario, the profits might be applied to provide compensation to hotelkeepers who would suffer loss by being deprived of the license to sell liquor.

We think it would be well if some of our readers were to express their views on the question of provincial prohibition. It seems hard that physicians should be exposed to suffer loss, in case the Liquor Act, 1902, becomes law, and yet they will make enemies if they honestly try to live up to it. Physicians know as well as most men the actual state of opinion in the places where they live, and can estimate whether such a measure has any reasonable chance of being supported if the machinery has to be paid for by the municipalities. If they think as we do, that prohibition could not be supported under these circumstances, it is their duty to speak out and save us from useless and hurtful legislation. Whether the present license system will be maintained or will be succeeded by the State dispensary system or some similar system for the sale of liquor, remains to be seen. J. J. C.

GERMAN DATA REGARDING THE CAUSE AND TREATMENT OF TUBERCULOSIS.

According to a recently published report emanating from the Imperial Health Bureau, Berlin, dust of various kinds is proved to exert a marked influence in the causation of tuberculosis among the patients at the sixty sanatoria for the treatment of tuberculosis in the German Empire. Thus of the 2,161 patients under consideration in 1895, more than one-half the number, the origin of the disease was alleged to be due to the continuous inhalation of dust, produced in their ordinary avocations. There were 431 cases from the effects of dust without any more exact designation; 182 from metallic dust; 129 from stone, coal or glass dust; 116 from wood dust; 111 from wool dust, and 126 from various kinds of dust. It is noteworthy that these statistics have been collected and issued by so unimpeachable an authority in medicine, and it is important that the attention of those who read medical literature should be directed to the hurtful influence of physical agents, such as different kinds of dust, in the causation of tuberculosis.

These statistics are not intended to divert attention from the conclusions of Koch as to the causative influence of the bacilli tuberculosis. On the contrary, they may, when all the necessary data have been collected, explain the *modus operandi* by which particles of dust cause irritation in and injury to the air cells of the lungs, and later on provide a site upon which the omnipresent bacilli tuberculosis may establish their parasitic existence in the living organism. Statistics of this nature should, therefore, be placed before ordinary readers in newspapers, so that their attention may be directed to the necessity of lessening the dangers of certain well-known trades and occupations. A discovery of a new method, or an improvement in an old method, of ventilating a factory, or a machine for consuming or utilizing dust, would be frequently announced to the public if there were a demand for such inventions and devices, and, unless there be a demand, a manufacturer cannot be expected to supply them from sentiments of philanthropy or pure love of science. The attention of the practical hygienist has already been attracted to the utility of such inventions, and it is unnecessary to appeal to him. It is the attention of the people that must be secured if any advance is to be made in the ventilation of factories

and workshops. When they demand improved ventilation, ventilators and dust consumers will not be regarded as expensive fads, but rather as cogent examples of the *commoda vitæ*, and the question of the removal of dust from factories will pass beyond the merely speculative stage and bloom into legislative enactment.

One of the readiest and most convincing proofs of the hurtful action of dusty air on the lungs is brought home to us by reflecting on the cures of tuberculosis, directly traceable to pure air. In fact, it would seem that we must learn of the power of physical agents to produce disease in the body by invoking the aid of the very opposites of these agents to cure the same disease. Some really marvellous results of the open-air treatment of tuberculosis are given in a report from the Imperial Health Bureau, Berlin, to which we have already referred.

There are, it appears, in the German Empire sixty sanatoria for the treatment of tuberculosis, having accommodation for five thousand patients. Six thousand two hundred and twenty-three patients were treated during the first six months of 1900, and of this number 34.7 per cent. were probably directly infected. In almost half the cases these patients had been ill for less than a year. The average duration of treatment for each patient was 92.4 days. With regard to the capacity of the discharged patients to earn a living, data were supplied in 6,108 cases. It was found that 67.3 per cent. were quite fit to follow their ordinary avocations; 7.1 per cent. were able to earn a living at some other business; 14.6 per cent. were hardly able to earn a living, and 11 per cent. were unable to work.

Data as to the final results of sanatorium treatment were furnished in 6,225 cases. It is to be noted that 87.7 per cent. were discharged as cured or improved in health, as against 84.6 per cent. in the previous report. The results of the open-air treatment of tuberculosis, as shown in the last report, are, therefore, presented in a very favorable light—more favorable than in the previous report. It would, however, be an error to suppose that the improvement recorded had resulted from a more accurate or thorough application of the system in vogue at German sanatoria, which obliges tubercular patients to breath pure air night and day.

More cures are announced, because the cases sent in had been more accurately diagnosed, and the most suitable ones had been selected for sanatorium treatment.

Even in severe forms of tubercular lung disease an early

diagnosis and sanatorium treatment, one of the salient features of which is the constant breathing of fresh air, effect cures. Such cures should make people think and see the necessity of providing reasonably pure, dust-free air in factories and workships.

J. J. C.

IS CANCER CURABLE?

In November, 1901, we published an abstract by Dr. Dumont, of a paper by Professor Adamkiewicz, of Vienna, in which it was reported that a woman had been cured of cancer of the womb by injections of cancroin. Since then Adamkiewicz reports in *La Presse Medicale*, of Paris (January 22nd, 1902), four cases of cancer of the esophagus treated successfully by himself with the same agent.

He says: "When cancer attacks a vital organ, it threatens its victim on both sides at the same time, like a foe who, to secure the prompt surrender of the city he besieges, starves the defenders while he batters the walls. As the consequences of cancer of the respiratory passages or the digestive tube are so formidable, and as it is one of the most cruel afflictions to which man is exposed, so the noblest office of the physician and that one which he ought ceaselessly to pursue is to seek to save his fellowmen from so terrible a disease, and if he succeeds in accomplishing his task he has a double right to be delighted—as a learned man, because he has shown what science can do; and as a man because he has been privileged to succor the miseries of humanity."

Adamkiewicz then proceeds to show by four cases reported in full that he has accomplished the cure of undoubted cases of cancer of the esophagus by the hypodermic injection of cancroin.

We shall content ourselves with reporting his fourth case, so that our readers may judge for themselves. "Mrs. S——, 57 years of age, lives at Drinsk (Russia), ill for three years, presents all the signs of an increasing stenosis of the lower end of the esophagus. During the summer of 1901 she observed that her food did not pass through to the stomach. Shortly afterwards solids would not pass through the gullet at all, and she was obliged to be satisfied with liquids. Even liquids passed through slowly into the stomach, after having been delayed at a point which the patient localized behind the xiphoid appendix.

"I showed October 22nd, by means of the esophageal bougie

that there was an impassable stricture of the esophagus, situated 41 centimetres (16.14 in.) from the teeth. On withdrawing the bougie I noticed that it was covered with blood. The presence of a cancer was evident. This patient like the others reacted to the cancroin treatment with astonishing rapidity. *The troubles of which she had complained for three years disappeared in a few days under the influence of the injections.* After six days' treatment this patient could swallow liquid and solid food without difficulty, the passage of food causing a slight feeling of pressure at the point where the stricture had been located. At the beginning of November, as the result of a chill, this lady was obliged to go to bed and to stop the cancroin treatment. *The dysphagia immediately reappeared.* On November 9th, having recovered from her cold, she went to one of the private clinics in Vienna (I was then absent from town) and had the esophageal bougie passed and an X-ray examination made. The passage of the bougie and the X-ray picture both showed the existence of a contraction of the esophagus situated on a level with the bifurcation of the trachea, a capsule of bismuth swallowed by the patient being stopped at this point.

"On November 10th she consulted me again, and I injected cancroin. A second injection was made November 11th. Her troubles disappeared immediately, and on the 12th she went to the clinic where three days before the physicians had diagnosed a stricture of the esophagus. To their astonishment these gentlemen on examining her a second time found no trace of esophageal stricture: *I hold their written statement to that effect.* On the following days the patient's condition continued to improve, and November 30th she returned home completely cured."

In an introduction to Adamkiewicz's article in *La Presse Medicale* Dr. Dumont expresses himself as follows: "Professor Adamkiewicz has isolated from cancer juice a microbic poison, a toxin which he calls cancroin. Its chemical composition is not yet defined, but its physiological properties, which are precisely similar to those of *neurin*, a toxic base extracted from fresh cadaveric tissues, enable us to compare it with the latter poison, which is a hydrate of trimethylvinylammonium. Weak doses of cancroin or neurin injected into the blood of cancer patients exercise a specific action on cancer and its metastases. They produce necrosis of the cancer elements, a necrosis followed, with or without inflammatory reaction, by elimination or reabsorption of these elements."

Justly considering the results obtained by Professor Adamkiewicz in the treatment of cancer as the most remarkable that have ever been chronicled in the matter of the *opprobrium medicina*, we take much pleasure in placing some of the evidence before our readers. J. J. C.

WHAT A MERE MAN DID.

A SHORT time ago in one of the Toronto newspapers an account of the treatment, dietetic and corporeal, administered in a so-called sanatorium, situated on the border of Fairy Lake, Muskoka, was "written up" in story-book style. As all know, a good story loses nothing in the telling, and in this scribe's tale humor abounded. Where there is smoke surely there is fire, and if even half of the imposition spoken of was practised upon the patients and they submitted and paid for being "fooled," truly, as the Chicago people say, "a sucker is born every minute." The tearful testimonies of the ex-patients are worth printing in scare type would space permit. The dear creatures betook themselves, their various pains, good money and sweet trustfulness, and deposited all three within the restful obscurity of this so-called sanatorium, quenching their thirst for health by cooling draughts from, and cooler ablutions in, the placid waters of the afore-mentioned Fairy Lake. At the same time they enlarged their point of view of the methods of "a mere man," who calmly fed them on equal quantities of porridge and sulphur. That man had a head and a theory—first heat the blood, then cool it. Occasionally he added a little castor-oil and offered this nectar to the goddesses, for which they paid only thirty-five dollars a week! A wise one has said, "Life has no blessing like a prudent friend." So to dear, trusting humanity—who loves to go to quackdom to have its ailments treated, we physicians can only say: If you are robbed, plundered, spat upon and torn, *don't squeal in public*, please; it only makes us laugh, and those laugh longest who laugh last. W. A. Y.

A HUMAN SUBJECT FOR VIVISECTION.

IF recent newspaper reports are quite correct, a New York physician has offered himself as a subject for experimental surgery. If prompted by the highest motives—the advancement of science and the enlightenment of the surgical world, and as a consequence the

saving of the lives of others—the deed is noble, the facing death in life, actuated by as lofty a motive as crowned the martyrs as they sang on their way to the stake, there giving their bodies to be burned. If, on the other hand, a craving for notoriety possesses the man's mind, or he is laboring under a slight mental hallucination, he should be forcibly restrained, and certainly in any case the surgeons in charge of the hospital to which it is said he has offered himself, should pause ere using the knife, and ask, "Does science demand a human subject? Is not the whole brute creation at her disposal? Then why should she demand a complex being, composed of body, soul and spirit, made a little lower than the angels?" Also life's responsibilities have already been assumed, and life's most solemn vows spoken by this man, for he has wife and children. Further, does not his profession (medicine) claim him rather as an active agent in life's work than a passive subject?

It is gruesome enough, this needful vivisection, when carried on with animals as subjects, but if it should be deemed absolutely necessary to go a step higher, surely it would be more seemly to begin experimenting upon criminals under death sentence, though even this we do not feel we could advocate. W. A. Y.

EDITORIAL NOTES.

The Microbe of Vaccine and Variola.—We are indebted to *La Presse Medicale* (Dr. Labbé) for an abstract of Funck's paper on "The Microbe of Vaccine and Variola," published in *Centralblatt für Bakteriologie*, 1901, 5 juillet, tome XXIX., No. 24, p. 921. From experimental researches made by this author he concludes that vaccine and variola are identical. Suspected for a long time this identity received a first instalment of proof in 1807 by Gassner, who by inoculating a cow with variolous pus, obtained from her characteristic pustules with which children were afterwards inoculated. Since then Thiele, Reiter, Voigt, Fischer, Eternod, Haccius and Hime have endeavored to obtain vaccine by inoculation of variola. Funck found in all the active vaccinal lymphs a sporidium which is also found in smallpox pustules. This sporidium vaccinale, already described by Pfeiffer, yields, on inoculation in the calf, characteristic symptoms of vaccination, and confers on the animal immunity to that affection. Examining fresh vaccinal pulp by the microscope he found two kinds of characteristic

elements: (1) rounded cells of twenty-five μ (average), with or without a nucleus and containing spores; some cells are elongated into a club form, these are the sudanophile elements of Sildestrini derived from the sebaceous follicles; finally epithelial cells and leucocytes appear. (2) He found also free spores of one to three μ, movable, refracting, capable of multiplication when the lymph is placed in the oven. These are the elements which Pfeiffer considered the parasitic sporozoa of epidermic cells. Inoculation with the vaccinal sporidium reproduces vaccine. To prove it the author isolates mechanically under the microscope, by means of a very fine spatula, the sporidia, and after mixing them with bouillon, inoculates them under the skin of the back or the perineum of a calf: veritable vaccine pustules develop and the animal afterwards becomes refractory to inoculation with active vaccinal lymph. An examination of smallpox pustules showed the author the same parasites as he had found in vaccine: cells filled with spores and free spores, isolated or grouped, from two to six μ in diameter. Funck tried to cultivate in the oven, in hanging drops, vaccinal lymph in bouillon, and got a slight multiplication of spores and increase in their diameters. The same results were obtained with the juice of smallpox pustules. When he dried under a cover-glass either vaccinal pulp or the liquid of a smallpox pustule he noticed that certain spores were not destroyed, but preserved their refracting appearance. These are the resisting forms. From the identity of the microbic elements found in vaccinal lymph and in smallpox pustules, Funck concludes that variola and vaccine are one and the same. In reference to Funck's description Dr. Labbé remarks that the elements referred to in his paper, which were first described by Pfeiffer, correspond with the parasite described by Drs. Roger and Weil in smallpox. Funck does not appear to have known of their paper, although it antedated his own by several months.

Kissing the Book.—The *Lancet* (London, England) alludes editorially to the dangers of kissing the Bible when taking an oath, and contends that this practice should pass into desuetude if for no other reason than that it is unhygienic. According to Section 5 of the Oaths' Act of 1888 (England), if any witness desires to swear with uplifted hand in the form and manner in which an oath is usually administered in Scotland he shall be permitted to do so, and the oath shall be administered to him in such form and manner without further question. The *Lancet* con-

cludes by stating that "Every witness, and more especially every medical witness, should exercise his undoubted right and demand to be sworn in the Scotch fashion." We think that the argument of the *Lancet* is strong from a hygienic standpoint, although it does not appear that chancroid of the lip has been traced to the habit of kissing the book. Neither has it been shown that contagious disease has been caused by the kissing of the crucifix, as practised by Catholics on Good Friday. When evidence of this kind is forthcoming there will be a public demand that the habit of kissing the book when taking the oath shall be changed. As few witnesses, however, though unwilling to press their lips to the soiled cover of the book, or even to one of its cleaner pages, have sufficient courage to insist upon a different method of taking the oath than the one usually followed, it would be in consonance with modern views if the Government of Canada were to bring in a bill to effect a change in the manner of taking the oath. If a witness simply places his hand on the sacred volume when he swears it ought to meet all the requirements of justice and remove the objections of the hygienist.

The Disinfection of Sleeping Cars.—Through carelessness or inability to prevent it, tuberculous passengers foul the blankets on their beds and the curtains of their berths with sputum. R. J. Wilson, Instructor in Bacteriology, New York University, has tried some experiments in sleeping-car disinfection, with the view, first, to get good disinfection, and second, to do it so that the disinfected car is made fit for service in the shortest possible time. After describing trials of different quantities of 40 per cent. formalin and formaldehyde gas, generated directly from methyl-alcohol by passing it over red-hot platinum he says, "In the fifth experiment formaldehyde gas was generated from methyl-alcohol direct, six litres of alcohol were used and the time of exposure was five hours. There was superficial disinfection without penetration. There was a strong odor of methyl-alcohol in the car for a few hours after disinfection, but not enough to keep it out of service." In reference to the comparative merits of the different forms of disinfection by formaldehyde he says: "The persistence of the formalin odor, after disinfection with formaldehyde gas generated from 40 per cent. formalin or paraform, renders these undesirable for car disinfection, while the rapid dissipation of the odor, after the use of methyl-alcohol particularly, recommends it to favor for surface disinfection." As to the penetrating power of

any form of formaldehyde disinfection his conclusion is: "Penetration cannot be counted on, so that all portable articles in the car, especially the blankets, should be disinfected in a chamber where complete penetration is assured."

A Chemical View of the Origin and Malignancy of Cancer.—Dr. John Holden Webb, writing in the *Lancet*, October 12th, 1901, p. 976, on the nature and treatment of cancer, endeavors to explain the malignancy of that disease by a chemical hypothesis. After discussing the parasitic theories of cancer, Webb expresses a doubt of its contagious nature, and he cites personal cases in which cancers, carefully observed, have completely recovered without treatment, and in an unexpected manner. Then he compares cancer with myxedema, and mentions that the use of thyroid extract appears to have caused the cure of cancer. Observing what takes place in individuals affected with biliary lithiasis, followed by cancer, he remarks that in their cases calculi of cholesterine are the cause, and he draws from this observation the conclusion that it is the deprivation of soluble cholesterine, the crystallization of that body, which causes cancer, and he applies the following theory to all cancers in any part of the body: the malignancy of cancer is due to a crystallization of cholesterine. In fact, according to Webb, the presence of cholesterine in the cell regulates the development and the reproduction of each cell. A cell deprived of cholesterine becomes diseased and proliferates without control. This author then endeavored to treat cancer by interstitial injections of soap, and he describes extraordinary cases of cure or improvement in cancer observed by him at Melbourne. In most of the cases he employed thyroid extract simultaneously. The soap acted, without doubt, by dissolving the cholesterine.

Should Paper Money be Disinfected?—Hygienists contend, and with a considerable show of reason, that paper money is responsible for the spread of contagious diseases. Now that an epidemic of smallpox prevails in this country and the United States, and that American bank bills circulate in Canada, it seems all the more necessary to devise some cheap and effective plan of preventing the contagion present in paper money from spreading to healthy people. Banks should be asked to destroy all bills found on smallpox suspects and patients, replacing the same without charge. The practice of replacing old or worn bills which have been much exposed to contagion should also be an established

usage. If it were known that the Canadian banks followed this custom the people would soon acquire the habit of asking for new untarnished bills. The American banks for a similar reason would probably adopt this custom.

The Action of the Phosphates in Promoting the Active Growth of the Hair.—Dr. Jolly (*La Presse Medicale*, December 5th, 1901) recalls his former work on the chemical composition of horse hair. Functional activity attains its maximum in the black hairs, which contain infinitely more phosphate of iron than red or blonde hairs. Falling of the hair is often observed in nursing animals; similarly, nursing women lose a great deal of hair. This is apparently caused by the fact that the phosphates are not fixed in the hairs, but are carried away by the milk secretion. Loss of hair in arthritic persons is quite different. An arthritic patient is one whose cellular nutritive functions are modified by his disease, and in whom the hairs effect the permanent fixation of the phosphates in themselves in a very imperfect manner. J. J. C.

PERSONALS

Dr. Adam Lynd has removed to Melbourne Avenue.

Dr. R. B. Nevitt has removed to 46 Bloor Street West.

Dr. G. R. McDonagh returned from his recent trip about February 14th.

Dr. John Coventry, of Windsor, Ont., died of pneumonia on the 22nd ult., after a week's illness.

Dr. G. H. Burnham, of Bloor and Huntley streets, has leased the magnificent residence of the late Dr. J. E. Graham, on Bloor Street East.

The W. J. Matheson Co., Limited, of New York, have opened a new office at Atlanta, Ga., and have closed the one formerly at Charlotte, N.C.

Among those who have been taking part this winter in the drives every Saturday of the Tandem Driving Club, are Dr. D. C. Meyers, Dr. W. A. Young, Dr. Geo. A. Peters, and other city practitioners.

Mr. H. W. Brick, the genial manager of the Canadian office of H. K. Wampole & Co., of Philadelphia, has moved into his new house on King Street, in Parkdale, presented to him by his firm on the occasion of his marriage recently.

Dr. Chas. E. Treble left two weeks ago for Europe, where he intends putting in some months in advanced work in the London and Continental hospitals.

Dr. J. Milton Cotton returned two weeks ago from New York, where he was assisting in the purchase of an outfit for Grace General Hospital new operating room.

Dr. Chas. Sheard, the able and most efficient Medical Health Officer of our city, has, we are glad to know, been granted an increase in salary. This is just as it should be, as Toronto has never had so able a medical health officer as at present.

Dr. A. J. Harrington has his architect's plans complete for a very up-to-date doctor's residence on Bathurst Street, just above Bloor Street, costing well on to $10,000. The doctor expects to commence building as soon as the frost is out of the ground.

We have received an earnest appeal for a doctor, from Newington, Stormont County. It seems that there is a splendid opening for a physician in this live little town, and *no opposition whatever.* A Methodist would be preferred. Full particulars will be furnished by addressing the Journal.

Mr. W. H. Chandler, President of the Chandler & Massey Limited, with Mrs. Chandler, sailed for England on S.S. *Commonwealth* about three weeks ago. Mr. Chandler will spend some time in Naples first, and then expects to put in a few weeks in London transacting business with the Imperial Government.

Dr. D. N. Maclennan, M.R.C.S. (Eng.), L.R.C.P. (Lond.), begs to announce to the profession that he has located at 42 Carlton Street, Toronto, to make a specialty of the eye, ear, nose and throat. He was formerly resident surgical officer at the Royal London Ophthalmic (Moorfields) Hospital, and late resident surgical officer at the Nose, Throat and Ear Hospital, Golden Square, London, W.

Tuberculosis Pavilion Opened.—Recently the New York City authorities have opened a tuberculosis pavilion in connection with the Metropolitan Hospital on Blackwell's Island. It contains 120 beds, and it is hoped that there will be a sufficient appropriation forthcoming to allow of building a long, open porch, where, protected from the wind, the patients may get the benefit of open-air treatment. Special diet will be provided, and it is intended to make use of forced alimentation.—*Jour. of Amer. Med. Assn.*

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

ON BEHALF OF THE INEBRIATE.

To the Editor of THE CANADIAN JOURNAL OF MEDICINE AND SURGERY:

DEAR SIR,—In the February (1901) number of the JOURNAL, you say editorially, p. 132, that "if it is right to spend Provincial money in helping to obtain the cure of tubercular patients, for whose illness the State can not be held responsible, it is only honest to apply a percentage of the fees derived by the Province from license fees in assisting drunkards to improve their health and restore their moral stamina." This was written *apropos* of the efforts that are being made to secure the adoption of the proposed bill for the economic treatment of inebriates in Ontario. This bill was not brought down last session, and I much regret to report that there appears to be no prospect that it will be introduced during this session of the Legislature. In an interview with the Provincial Secretary on the 5th inst., the Prisoners' Aid Association, accompanied by an influential deputation, made a strong plea for immediate action on the part of the Government to promote the treatment of drunkards—preferably by the adoption of the proposed bill for the treatment of the class referred to. The Secretary stated in reply, that the Government could not see its way to the introduction of the bill this session, but that—if returned to power—the necessary legislation would be provided in the near future.

The deputation reminded Mr. Stratton that during the last eight or ten years the great need of provision being made for the treatment of inebriates had again and again been pressed upon the Government, and that the bill referred to had been under the consideration of the Government for fully two years. If, however, there were good and sufficient reasons why the bill could not be introduced this session they submitted that it was not too much to ask that, in view of all the circumstances, some action on the part of the Government should be taken without further delay, not to grant public money to be put in brick and mortar, but to place, say, $3,000 in the estimates to be used in the meantime for

the purpose of stimulating voluntary effort in treating inebriates either in cottage hospitals or in public hospitals when the latter are available for the purpose. The deputation also asked that the Prisoners' Aid Association be reimbursed for moneys spent in the treatment of inebriates last year, and pointing out that the result of this effort was most encouraging, in view of the fact that twenty-two out of a total of sixty-one cases treated are known to be doing well.

The Secretary stated that as this is the last session of the present Legislature the Government could not see its way to bringing down the proposed bill at the present time, but that the matter would be taken up after the general elections. In the meantime he would be glad to see what could be done with an appropriation such as suggested by the deputation, as he was very desirous that the experiments in the treatment of inebriates commenced by the Prisoners' Aid Association should be continued. To this end he would be glad to recommend to his colleagues that an amount be placed in the supplementary estimates for the purpose, said experiments to be conducted under Government supervision.

To those who are fully expecting the introduction of the bill this session, this reply of the Provincial Secretary is, of course, disappointing, but if an ample appropriation be made by the Government to give the proposed scheme a fair trial before the next meeting of the Legislature, possibly in the end the cause will be the gainer rather than the loser thereby. In the meantime, and until something effective is done for the rehabilitation of the unfortunate drunkard, we solicit the kind co-operation of the members of the medical profession in this undertaking.

Yours truly,

Confederation Life Building, A. M. ROSEBRUGH.
Toronto, February 12th, 1902.

A RECENT newspaper account of an operation performed under the anesthetic influence of hypnotism relates that the "patient was an interested spectator," and watched the "warm blood spurt under the surgeon's knife!" As the operation in question was a curettement of the uterus, it would be exceedingly interesting to know just how the lady managed to see all this. Even the proverbial curiosity of the sex would find it difficult, we should think, to overcome anatomical difficulties in the way of observation, which might appal even a "rubber woman."—*Medical Standard.*

Items of Interest.

Dr. Joseph S. Carreau, who died in New York on January 7th, is said to have left an estate worth nearly $100,000.

Luther W. Allingham, a well-known physician of Randsburg, Cal., and a native of Ontario, died January 29th, aged thirty-nine.

The women students on whom the doors of the Northwestern University's Medical School closed recently, are to be admitted to full privileges in Rush Medical College.

Dr. Henry Rutgers Baldwin, President of the Board of Health of New Brunswick, N.J., died at his home in that city on February 3rd, from pneumonia and heart disease.

To Admit Women.—The Faculty of Rush Medical College, Chicago, have adopted resolutions recommending the opening of the courses of that institution to women, the change to take effect in the fall.

Dr. William Henry Skene, son of the late Dr. Alexander J. C. Skene, was given a banquet by the Hospital Graduates' Club on January 30th. Dr. Skene will hereafter make his home in Portland, Oregon.

Notre Dame Hospital Quarantined.—Smallpox developed in one of the attendants at the Notre Dame Hospital, Montreal, and the whole institution was under quarantine until the 12th of last month. There were over 200 patients in the institution.

The "Cleveland Medical Journal" is the result of the amalgamation of the *Cleveland Journal of Medicine* and the *Cleveland Medical Gazette.* The new journal is to be published as an independent and free professional institution, conducted for the good of the medical community.

The Medical Society of the State of New York held its ninety-sixth annual meeting at Albany on January 28th, 29th and 30th, in the common Council Chamber of the City Hall. The deliberations of the Society were presided over by the President, Dr. Henry L. Elsner, of Syracuse.

To Stimulate Original Research in Medicine.—The Nathan Lewis Hatfield prize for original research in medicine, amounting to $500, will be awarded by the College of Physicians of Philadelphia for the best essay on "The Relation between Chronic Suppurative Processes and Forms of Anemia," submitted on or before March 18th, 1903.

Dr. Thomas H. Manley, of New York, was recently the defendant in an action for malpractice brought against him by a woman who alleged the unnecessary removal of a joint of the thumb. The case was tried in the New York Supreme Court, and the jury, after only five minutes of deliberation, brought in a unanimous verdict in favor of Dr. Manley. Congratulations, doctor.

A Swindler of Physicians.—A man has been arrested in Chicago on the charge of having swindled several hundred physicians in Illinois, Iowa, Michigan, Minnesota and Wisconsin out of small sums of money. He is charged with having fraudulently obtained cash subscriptions to a Chicago medical publication, offering the subscription at a reduced price, and then keeping all that was collected. —*Med. Record.*

"The Surgical Clinic."—We received just before going to press the first issue of *The Surgical Clinic*, published by the Clinic Publishing Co, of Chicago, Ill. This journal is the running mate of *The Alkaloidal Clinic*, and will appear monthly. Judging from the contents of the initial number, the publishers are to be congratulated upon their new magazine, its appearance and general style being exceedingly creditable, and we heartily wish the baby success.

Dr. Charles H. Burnett, well known through his work as an otologist, died at his home at Bryn Mawr, Pa., on January 30th, at the age of sixty-one. He graduated from the Medical Department of the University of Pennsylvania in 1866, and later prosecuted his studies abroad. He was the senior editor of an "American Text-Book of Surgery for Practitioners and Students," and was one of the editors of an "American Year-Book of Medicine and Surgery."

New York City Hospitals now Controlled by Trustees.—On February 1st the control of the Bellevue group of city hospitals, which includes, besides Bellevue, the Fordham, Harlem, Gouverneur, the Emergency Hospital in Twenty-Sixth Street, and, on its completion, the new hospital in Harlem, ground for which has been already secured, was formally transferred from the Commissioner of Charities to the new Board of Trustees provided for under the revised charter.

The Southwestern Medical Association of Manitoba.—A few months ago this new medical association was organized among the practitioners of medicine in the southwestern part of the Province of Manitoba, and out of seventy available practitioners for membership in that district, no less than sixty-seven have already become members, and there is every reason to believe that the remaining three will soon come in This speaks well for an attempt at organizing the profession in Manitoba, as it is intended to carry on the good work of organization until the whole province is brought within its scope.

A Woman House Surgeon.—A woman was appointed by the committee house surgeon to the Macclesfield Infirmary some time ago, and now refuses to resign, although the entire honorary staff object to a female in that position. She pretends she is contending for a principle, but it seems to be going rather far for a woman doctor, however competent and wedded to science, to force her attendance on males, especially on patients with genito-urinary diseases.—*Med. Record.*

Dissemination of Disease by Public Telephones.—The public telephone having been pronounced an active and potent means of disseminating disease germs, the San Francisco Board of Health, in order to find means for the elimination of this danger, has ordered that all inventors or manufacturers of telephone appliances that could disseminate disease germs shall forward working models of them for examination to the office of the board within a period of sixty days.—*Amer. Medicine.*

A Physician's House Burned.—The house of a physician in Appleton, Wis., was destroyed recently by fire, which was suspected to have been of incendiary origin, there having, of late, been numerous threats against the man. He is said to be a disbeliever in the contagiousness of smallpox, and, in order to prove the correctness of his theory, smeared himself with the secretions from smallpox lesions, and then started on a visit to several towns about his home. Smallpox prevails extensively now in that region, and many of the friends of the sufferers have attributed the epidemic to this doctor's freak experiment.—*Med. Record.*

Princess Beatrice Holds Coroner's Inquest.—Princess Henry of Battenburg, the youngest daughter of the late Queen Victoria, is at present the Coroner of the Isle of Wight. She is the Governor of the Island, and in default of her appointment of a Coroner must also fulfil the duties of that office. The coroner died suddenly one day recent'y. The next day a sailor, belonging to a yacht, was drowned at Cowes. The Princess was duly notified of the drowning and of her duty to hold an inquest. Of course she appointed a deputy to do the disagreeable work, but she had to countersign the verdict of the jury before it was forwarded to the Home Office.

A Million Dollars for Harvard Medical School.—John D. Rockefeller has given a million dollars to the Medical School of Harvard University, the gift, however, being contingent upon the condition that other friends of the University donate half the sum given by himself. Mr. Rockefeller's gift will be used partly for the construction of new laboratory buildings and partly as a fund for defraying the running expenses of the institution. This makes the second donation of a million dollars received by the Medical School within the year, J. Pierpont Morgan having given that sum to the institution during the last commencement for the erection of new buildings.

Blackmailing Doctors.—Two well-known physicians of Toronto were last month subjected to threats for the purpose of extorting money from them. When one of the physicians was visited in his office by the husband of a woman whom he had been called to attend and financial demands made upon him, he quickly laid a trap for his would-be blackmailer by requesting another interview, when he had a concealed witness present. The second physician had been called to attend the child of the family, and later the husband visited him at his office and made the same demands, claiming that his wife had been insulted. In this case he was shown the door. The case was quickly disposed of and the blackguard suitably punished.

Vaccinate!—Smallpox counts sufficient victims each week to permit of not the slightest relaxation in our efforts to struggle against it by the only effective method that we possess, viz., vaccination. We do not know what the action generally of great employers of labor may be, but we believe that such institutions as traction companies, post-office departments, ship-yards, locomotive works, railroad companies, etc., would be entirely justified in exacting a certificate of successful vaccination within five years as a prerequisite for entering or continuing in employment. Every conductor, every motorman, and every mail-carrier—all of these coming into more or less intimate contact with the public—should be vaccinated.—*Amer. Medicine.*

Sanitarium Visiting List.—At the first meeting of the Executive of the National Sanitarium Association, in view of the early opening of the Free Consumption Hospital at Muskoka, and the establishment of a third institution near Toronto, an addition of twenty-five of the following physicians was made to the visiting list of this association. The names include: Drs. W. B. Geikie, H. J. Hamilton, Gilbert Gordon, C. J. Hastings, W. Theo. Stuart, Allen Baines, J. T. Fotheringham, George A. Bingham, C. M. Foster, Beverley Milner, F. N. G. Starr, Wm. Oldright, F. T. McMahon, A. McPhedran, W. B. Thistle, R. J. Dwyer, G. A. Peters, G. Chambers, Andrew Gordon, Charles O'Reilly, D. W. McPherson, R. A. Stevenson, John Caven, J. J. Mackenzie, H. B. Anderson.

"American Medicine" is in favor of abolishing the coroner's office.—It claims that where it has been done there has been nothing but gratification at the result: where it has not been done scandal and shame are constant. It is said that a saving of $100,000 a year to the County of New York could be made by doing away with the office. The work now performed by it, the editor thinks, could be readily done by the officials of the district attorney's office and of the Board of Health. Tradition and politics have too long united to maintain the existence of this anachronism, of service perhaps in a mediæval state of society, but entirely out of place in the life of a modern city. This may apply to New York State and other States, but in Canada the office of coroner is not abused as it must evidently be across the line.

Labrador Medical Mission.—The mission which deals with over 2,000 cases every year has a finely equipped hospital steamer, has built two hospitals on the Labrador shore, and is now erecting a third hospital in northern Newfoundland. All the medical attention received by the people along these coasts is given by the physicians belonging to the mission. There are so few physicians, however, in comparison to the vast territory to be covered, that many requiring it, do not receive sufficient medical attention. Among the natives sanitation is totally disregarded and isolation for contagious diseases is practically unknown. Besides the medical work the mission has been instrumental in establishing co-operative stores, providing work, finding homes for orphans and relieving many cases of destitution.

The Norwegian Hospital of Brooklyn has, since 1887, been in receipt of nearly $4,000 annually from an anonymous donor. The amount was paid regularly in quarterly instalments of $960, but the deaconesses in charge of the institution have only just learned whence the gifts came. The amount was the interest at 6 per cent. on $64,000, which the late Mr. Alfred Corning Clark left in trust for this purpose, with the express understanding, however, that the donation be made anonymously, and the donor's name be kept a secret until such time as it should be decided to hand over the principal. Mr. F. G. Bourne, who has had charge of the fund, has now made public the giver's name, while handing over the sum to the trustees of the hospital as a permanent trust fund to be known as the "Skougaard-Severini Memorial."—*Med. Record.*

Treatment of Narcotic and Alcoholic Patients.—We have received the following letter from Dr. A. J. Givens, of Stamford Hall, Stamford, Conn :

"Dear Doctor,—I wish to call your attention to the statute in the State of Connecticut, which permits narcotic and alcoholic patients to voluntarily commit themselves to a sanitarium for treatment for any length of time not exceeding one year.

"Chapter 130, Section 3690, General Statutes of Connecticut, reads as follows :

"'The managers, trustees or directors of any inebriate asylum established by the laws of this State, may receive any inebriate or dipsomaniac who shall apply, and be received into such an asylum, retain him one year, and treat and restrain him in the same manner as if committed by the Probate Court.'

"One cottage in the Givens' Sanitarium is devoted to the treatment of alcoholic and narcotic patients."

New Superintendent of the London Asylum.—Dr. T. A. McCollum, of Dunnville, has been appointed Superintendent of the London Asylum, in succession to the late Dr. R. M. Bucke, at a salary of $2,000 and residence. Dr. McCollum is a very well-known practitioner in the Niagara Peninsula, where he has practised his profession for the past quarter of a century. He came originally from Stouffville, York County, where his aged father still resides. Dr. McCollum is said to rank as one of the best

surgeons in the peninsula. He has never ceased to be a student, and is specially interested in botany and natural history. He is a recognized authority on fish and game, and has been chairman of the Provincial Commission since its establishment. He was at one time an unsuccessful candidate for the House of Commons. Dr. McCollum has two sons in the medical profession.

Overcrowding of the Profession in Belgium.—The *Gazette Méd. Belge* states that the year 1901 continued the overcrowding of the profession. Parents are not discouraged by the difficulty of making a living from the honest practice of medicine. They see the rapid success of unscrupulous persons who disregard the ethics and dignity of the profession, and they push their sons into the medical courses advising them to mix a little charlatanism with their medicine. The average regular physician in Belgium earns at most 3,000 francs a year, scarcely $600. The *Gazette* adds that the number of patients is actually more than it was thirty years ago. If the number of physicians had not increased out of all proportion, the emoluments of the profession would be better than in the "good old days."—*Jour. of Amer. Med. Assn.*

Dangerous Substitutions.—A case was recently tried in a Detroit court, the testimony in which is convincing proof of the fact that substitution of a dangerous kind is only too prevalent, and that, moreover, those engaged in the practice on a large scale are reckless and careless to a degree difficult to conceive of. One employee of the person on trial testified that he did not know what the substance was which he was putting up in bottles; did not know which labels he should put on—all were powders—and that no one told him! The books of this gang of counterfeiters are said to show that their counterfeit goods have been sold to thousands of druggists all over the country. It therefore behooves the prescriber to make sure that his prescriptions are filled as written. When any doubt of this is felt, a sample of the medicine dispensed should be sent either to some analytical chemist or to some manufacturer for examination as to its purity and strength.—*Editorial New York Med. Jour., Dec. 21st, 1901.*

The Life Insurance of Quack Medicine Drunkards.—A writer in *The Insurance Advocate* for January, 1902, says that one life insurance company requires that the medical examiner shall ask the applicant, "What patent medicines have you used in the last five years?" In commending the action of the insurance company the writer deplores the national expense and physiologic injury done by the advertising nostrum-vendor. "A man who will swallow a patent medicine for his blood will swallow a yellow journal editorial for his mental ballast, and he who will bolt department-store pills for his liver, is not a fit subject for life insurance." The action of this insurance company is significant of the new methods in life insurance, whereby there is a sharper scrutiny into the habits and character of applicants as to things which were formerly disregarded.

If powerless to do harm medicines are equally powerless to do good, and the patent medicine drunkard is hardly a good insurance risk either morally or physically.—*Amer. Medicine.*

Cold Street Cars.—Perhaps no other single cause so frequently gives rise to "colds" as the unheated street car. Evidently this fact is realized by the health authorities of the borough of Brooklyn, who have carried on an investigation, which shows that cars are sometimes allowed to run with an inside temperature as low as 23° F. In extenuation of this neglect to heat their cars, the street railway people say that, owing to lack of electric power, they cannot do better, and cannot promise any improvement before the autumn of 1903! It is to be hoped that this excuse will not be accepted. If they can furnish no other means of heating the cars, they should be forced to put in stoves.—*New York Medical Journal.*

[In Toronto we have a first-class street railway service; but during our recent cold weather the complaint of the Brooklynites as to icy cars might prove true in our city as well.]

The Bill to Amend the Ontario Medical Act.—The Senate of Toronto University are up in arms regarding the proposal incorporated in the bill introduced in the Ontario Legislature by Dr. Jessop, which they claim aims to clip the wings of the Universities of the Province. An elaborate memorandum was recently addressed to the Minister of Education and distributed to the members of the Legislature by Chancellor Sir W. R. Meredith and Vice-Chancellor Moss. It complains about the bill in this wise: (1) It excludes from the body entrusted with fixing and determining the standard of medical education and prescribing the curriculum of studies those who, by reason of their avocation, as well as training and experience, are, if not best fitted, at least specially qualified for performing these duties. (2) It hands over to a practically irresponsible body the entire and absolute control of medical education, and creates a close corporation or guild. (3) It imposes on the universities and colleges engaged in the work of medical education the obligation of following the curriculum of studies prescribed by the Council without having any voice in the framing of it. (4) It violates the compact entered into with the universities and teaching bodies by which they were given representation on the Council in consideration of their giving up the right to confer degrees or diplomas in medicine and surgery, entitling the possessor of them, without further examination, to practise upon obtaining his license or becoming registered.

Galega Officinalis.—Galega Officinalis. Goat's Rue. Herbarutæ Caprariæ. Galega, Rue de Chevre, Fr. Geisraute, G. A perennial leguminous herb, growing in the south of Europe, and sometimes cultivated in gardens. It is without smell unless bruised, when it emits a disagreeable odor. Its taste is unpleas-

antly bitter and somewhat rough, and when chewed it stains the saliva yellowish-brown. In former times it was much employed in malignant fevers, the plague, the bites of serpents, worms, etc. In 1873 Gillet-Damitte, in a communication to the French Academy, stated that this plant when fed to cows would increase the secretion of milk from thirty-five to fifty per cent.; since which time memoirs have been published by Cerisoli, Goubeaux, Masson D'Audry, Dr. Millbank, Dr. Carron de la Carriere, and others, affirming that goat's rue given to nursing women acts as a powerful and fairly certain galactagogue. The best preparation appears to be a watery extract prepared from the fresh plant. This almost black extract has a pronounced odor, and may be given in doses of seven and a half to fifteen grains (0.48 to 0.97 Gm.) three to five times a day. The roots of the indigenous Galega Virginiana are said to be diaphoretic and powerfully anthelmintic. They are given in decoction.—*United States Dispensatory.*

Charlatanism and Cheek.—A Colorado correspondent has favored us with a circular letter sent out by an "osteopathic college" in Denver, which for brazen effrontery caps the climax. The physicians of Colorado and adjoining states, we are told, are receiving these letters and are accepting (?) the gracious offer with alacrity. It is not often that physicians have the opportunity of learning the theory and art of massage for the small sum of $200. Possibly the "individual attainments," plus the financial side, will make it possible for most of them to shorten the time "left to our judgment," with the right kind of persuasion. For the benefit of those who may not have been favored with a copy of the original, we reproduce the letter, grammar and all:

To Physicians: Having several medical graduates to apply for a short course in osteopathy, we are considering the starting of a class February 1st, for their benefit, and will do so if a sufficient number will enter for it. We will accept medical diploma for the subjects usually taught in medical colleges, and give a short review of special osteopathic features in physiology, together with regular lessons in osteopathic theory, principles and practice, as well as practical clinical work. The price will be made $200, and while nominally requiring ten months, this time may be shortened if the individual attainments of the applicant justify it. This, however, must be left to our judgment, as determined by our examinations of the applicant. Our secretary will be pleased to call on you if you will signify your willingness to consider the matter with him.—*Jour. of Amer. Med. Assn.*

Immunity of Boers to Enteric Fever.—In connection with the fact that the Boer forces have not suffered from the scourge of enteric fever to anything like the same extent as the British forces, a writer in the *British Medical Journal* quotes from an article in *Blackwood*, written by a district surgeon of British nationality, who serving under the late Transvaal Government, was

with the Boer forces nearly all the time from October, 1899, until February, 1900, and engaged in the siege of Mafeking and describes the conditions existing at that time in the laager on the Lower Malopo, of which he had charge and in which no definite case of enteric fever occurred, although the encampment remained in one place for two months and then moved only twenty or thirty yards further down for purposes of defence, where it remained for three or four months longer. The several hundred oxen and the horses also were fastened at night in the middle of the circle of waggons, converting the whole space into a manure heap, which in the warm weather became a breathing place for myriads of flies. To give some idea of their number, the writer counted fifteen flies on his lips one day while sipping a glass of claret. All the water used came from the Malopo, a muddy little ditch six to ten feet wide in most places, and which had already passed through another laager and also through Mafeking, receiving more or less sewage. To account for the absence of enteric fever among all this filth and the flies, it has been suggested that the majority of the Boers have gained immunity from having suffered from the disease early in life, when, as a rule, it has a milder course than in adult life, and also the Boers are not given to drinking water. Coffee is their usual beverage, and the boiling of the water for coffee may account for the comparatively rare occurrence of enteric fever among them.—*Amer. Medicine.*

The Medical Director of the Louisiana Purchase Exposition.—The important post of Medical Director of the St. Louis World's Fair has been filled by the appointment of Dr. Leonidas H. Laidley. Dr. Laidley was born at Carmichaels, Pa. He was educated with a view to the medical profession, and entered Cleveland Medical College in 1866. The following year he entered the Jefferson Medical College at Philadelphia. After graduating in 1868, he practised medicine with his father and brother, and then went to New York, where he entered Bellevue Hospital Medical College and took a higher and more thorough course, being graduated with distinction in 1872. Coming to St. Louis the same year, he entered upon a successful career both as a practitioner and medical teacher, showing always a decided love for the humanitarian side of his profession. He helped organize the Young Men's Christian Association and attended the sick applying to that institution for aid. He organized the free dispensary which became the nucleus of the Protestant Hospital Association. He filled the chair of anatomy and chemistry in Western Dental College, St. Louis, and after the organization of the St. Louis College of Physicians and Surgeons was called to the chair of surgical diseases of women. After filling that post for years he was called to the same chair in the Beaumont Hospital Medical College, and, upon its consolidation with the Marion-Sims College, forming the Marion-Sims-Beaumont College of Medicine, he was made Professor of Gynecology and Pelvic

surgery. In addition, he is surgeon to the Protestant Hospital, consulting surgeon to the Female Hospital, and a leading member of the St. Louis Medical Society and other medical organizations. He was a delegate to the British Congress in 1883, and while abroad visited the hospitals of the principal cities. When the Louisiana Purchase Exposition Company was organized he was one of the incorporators.

Sudden Death of Dr. R. M. Bucke, of London Insane Asylum.—Dr. Richard Maurice Bucke, superintendent of London Asylum, and known all over the continent as an insanity expert and as the lifelong friend and literary executor of Walt Whitman, died under particularly sad circumstances, February 19th. He was about to retire for the night, and about 11.30 he walked out along the veranda of his residence at the asylum. A few minutes later his family heard the sound of a fall, and hurrying out, found that he had evidently slipped on a piece of ice and struck the back of his head heavily on the floor. He was lifted and carried into the house, and it was found that he displayed no signs of life. Medical aid was summoned from the Asylum and from the city. Dr. Beemer and Dr. McCallum responded, but found on their arrival that life was extinct. The only mark of injury perceptible was a bruise on the back of the head. Dr. Bucke was born at Methwold, Norfolk, Eng., on March 18th, 1837, being the son of an Episcopal clergyman, the late Horatio Walpole Bucke. He married, in 1865, Miss Jessie Maria Gurd, of Moore, Ont., who survives him. The result of the union was a family of four sons and six daughters, the surviving members being Dr. E. Pardee Bucke, London; W. A. Bucke, Toronto; Robert Bucke, a student at the Western Medical College; Mrs. Harry Pope, Strathroy; and Miss Bucke, at home. The eldest son, Maurice Bucke, died in Colorado two years ago. Julius P. Bucke, K.C., of Sarnia, and P. Eustace Bucke, barrister, of this city, are brothers of Dr. Bucke.

Are England, Scotland and Ireland destined, ultimately, to become a part of "The United States of America and Great Britain"? is the startling inquiry which William T. Stead makes in the January *Cosmopolitan*. He has been one of the prophets of Great Britain, and has, at all times, been able to see in advance of his contemporaries—as events have proven. He has been studying the new conditions brought about by the industrial combinations, and reaches the conclusion that England and the United States are destined to be more closely united, and that as soon as the English people wake up to the absurdity and general uselessness, as has been shown in the Boer War, of a king and aristocracy, the trend will be immediate in the direction of a union with the people of the United States. However much one may differ from Mr. Stead, his speculations will be found vastly interesting.

The Physician's Library.

BOOK REVIEWS.

Practice of Medicine. By Eminent Medical Specialists and Authorities. Edited by Geo. Alexander Gibson, M.D., D.Sc., F.R.C.P. (Edin.), Physician to the Royal Infirmary, Edinburgh. Two volumes. Philadelphia: J. B. Lippincott & Co. Edinburgh and London: Young J. Pentland. 1901. Canadian Agent: Charles Roberts, 1524 Ontario Street, Montreal.

It is some time now since a work on practice of medicine, written and compiled by members of the profession in the United Kingdom, has been placed on the market. For that reason alone, therefore, this text-book will be accorded a welcome throughout Canada, especially when the names of such men as those we will mention are found in the list of contributors. We find that such well-known writers as J. O. Affleck, Alexander Bruce, Sir Lauder Brunton, A. Lockhart Gillespie, Sir William Gowers, W. A. Jamieson, A. P. Luff, Hector Mackenzie, Sidney Martin, Sir John William Moore, W. Pasteur, R. W. Philip, Wm. Russell, W. A. Turner and G. Sims Woodhead are identified with "Gibson's Practice of Medicine," so that it can readily be understood that the material contained within the cover boards of each volume could hardly be improved upon.

Volume I. is divided into an introduction and four sections. The former deals entirely with the general pathology of disease. Section 1 is devoted to general diseases; section 2 to diseases caused by animal parasites: section 3 to diseases caused by chemical substances, and section 4 to the alimentary system.

We read with a great deal of pleasure the chapter of 30 pages on typhoid fever, from the pens of Drs. J. O. Affleck and C. B. Ker. In referring to treatment by antiseptic drugs, which is merely touched upon, we are sorry to say, the authors claim that very little is to be gained by such, except the deodorization of the stools, possibly thus reducing the risk run by the attendants. Antiseptics do not injure the patient, they do not cut short the fever, and they do not prevent relapses. They may modify the ulceration and lessen the severity of the attack.

Hector Mackenzie, of St. Thomas' Hospital, devotes about 100 pages to tuberculosis. In that section he takes up acute miliary tuberculosis, to which he gives but a few pages, and then divides

his subject by considering separately tuberculosis of the different systems: Alimentary, lymphatic, vascular, serous, respiratory, genito-urinary, etc. Under prophylaxis Dr. Mackenzie says that opinions are still divided on the question of infection. Much can be done, he claims, towards the prevention of tuberculosis by educating the masses as to the proper means of disposing of the expectoration. The author then says that the greatest good can be accomplished if consumptive persons will act on the simple rules drawn up by the National Association for the Prevention of Consumption, which he then goes on to relate. The principal mode of infection, he says, is from man to man. Dr. Mackenzie does not discuss at length, as we hoped to find that he would do, the important question of the infection of tuberculosis between animal and man; but says, "infection from the lower animals to man is another mode which must be borne in mind. We have pointed out the enormous prevalence of tuberculosis among cattle, and the dangers arising from infected milk or meat, and shown how this danger can be removed by boiling the milk and thoroughly cooking the meat."

Volume II. is divided into six sections: The hemopoietic, circulatory, respiratory, integumentary, and nervous systems and diseases of the kidney.

The text-book is certainly full, modern and exceedingly practical. It reflects in every page the most recent advances in medicine as a science, though we feel a little disappointed that some of the authors have not touched more at length upon such points as we have alluded to, and which are uppermost in the medical mind at present. W. A. Y.

Encyclopedia Medica. Under the general editorship of CHALMERS WATSON, M.B., M.R.C.P.E. Vol. IX. Osteo-Arthropathies to Pregnancy (Physiology). Pp. 518. Edinburgh, Scotland: Wm. Green & Son.

This volume is one of the best that have appeared. Many of the articles are of great value. In such a cyclopedic work only a few of the more important can be referred to. That on Diseases of the Pancreas, by A. W. Mayo Robson, is an admirable presentation of the subject, although too brief. He refers to the great tendency to hemorrhage in certain diseases of the pancreas, especially if there is jaundice, and looks upon hemorrhagic pancreatitis only as a variety of acute pancreatitis plus the accident of hemorrhage. Before operating on these cases that are probably pancreatic, with or without jaundice, he gives 20- to 30-grain doses of calcium chloride every four hours for one or two days before operating, and by enema in 60-grain doses for the two days following. Incidentally reference is made to the fact that the gall-bladder is rarely enlarged in obstruction of the bile-ducts by gall-stones, while it is usually greatly enlarged by pressure on the bile-duct by disease of the head

of the pancreas, as it is also by pressure from without from any other cause. The frequent occurrence of tumor due to chronic inflammation of the head of the pancreas is emphasized.

The article on Paralysis is a composite one, by Risien Russell, Frederick Batten, and James S. Collier. It deals with the system lesions of the cord, and other diseases of the grey and white matter. It occupies 95 pages, and is, in view of such limited space for so extensive a subject, eminently clear and comprehensive.

Of the articles on Diseases of the Peritoneum, that on Tuberculous Peritonitis is by D'Arcy Power. He does not enter into a very full discussion of the subject, but shows less haste in operating than most surgeons. The results of operation have not proved as successful as expected a few years ago. For the disease itself, apart from such an accident as obstruction, operation is advisable only in the ascitic form, and these probably do as well without operation, and may show quite as rapid recovery as is met with after operation. In a few years it is quite possible that general opinion will agree with Borchgevrinck's, that surgical interference in these cases is a failure, and that they should be handed back to the medical clinic. When that time comes such articles as the one under consideration will be written by physicians, to whom they rightfully belong.

There are many other excellent articles, especially those on Pneumonia, by D. A. Welsh and Sir J. W. Moore: on the Pleura, by J. A. Lindsay and T. Sinclair; on Diseases of the Ovaries, by Alban Doran, and several others. There is a very interesting contribution by Francis Warner on Physiognomy, which was much more closely studied by the older physicians before the advance of science supplied precise methods of investigation.

The volume, as a whole, is highly commendable, and will furnish a reliable guide, especially to the general practitioner. The publishers have done their work in the creditable manner shown in the preceding volumes. A. M'P.

A History of Medicine, Surgery and Allied Science, with special reference to the progress made during the Nineteenth Century. Vol. III. of the Nineteenth Century Series. By Ezra H. Stafford, M.D., Toronto. London, Philadelphia and Toronto: The Linscott Publishing Co.

This is an octavo volume of between five and six hundred pages. As the author states in the preface, the book was primarily written for popular perusal. It will none the less prove of interest to the professional reader, however, for the writer's treatment of the subject has been painstaking and thorough. In the introductory chapters the progress of medical learning has been traced from the earliest times up to the middle of the eighteenth century, a period of about twenty centuries. The remainder of the volume gives a

comprehensive view of the remarkable steps made in medical science during the last century.

The introduction of the practice of vaccination and the discovery of the stethoscope occupy two of the earlier chapters. English and continental medicine and surgery during the earlier decades are then outlined at some length, considerable attention being given to the Paris and Vienna schools of research. The advances in physiology, chemistry and anatomy are traced in detail, and the cellular theory and the germ hypothesis occupy separate chapters. The introduction of anesthesia is also discussed, and the position of the rival claimants fairly stated. The influence of the theory of evolution upon medical thought forms a chapter of separate inquiry: and all the special branches, including gynecology, eye and ear, nose and throat, pediatrics, dentistry and the art of nursing come in for detailed consideration.

Living investigators are not personally mentioned in the work, except incidentally, but the latest discoveries and devices are referred to in the closing chapters: and the book is brought to a conclusion with several chapters upon the personal element in medicine, the physician in literature and art, and the medicine of the future.

This book will undoubtedly be of no little interest to the professional reader, as well as the laity: and it is to be hoped that the writer will continue his researches in the same lines of study.

The subject has been in the past very much neglected, and the appearance of such a work as this one, no less than the inclusion of the subject in the curriculum of the universities, is an indication of the growing culture of medical learning. W. A. Y.

An Introduction to Chemical Analysis. For students of medicine, pharmacy and dentistry. By Elbert W. Rockwood, M.A., M.D. Illustrated. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1901. Canadian Agents: Chandler & Massey Limited, Toronto.

This neat little book, from the pen of a Professor of Chemistry in the Colleges of Medicine, Dentistry and Pharmacy of the State University of Iowa, comes to us replete with new ideas of chemical analysis for the student of either medicine, dentistry or pharmacy. It is designed to furnish a scientific basis for the more technical courses, and to give the familiarity with chemicals and manipulative methods which is so necessary for real success in certain lines of medical, dental and pharmacal work.

The volume has been abridged in many cases, as in the detection of poisons where only the ones which best illustrate the methods of such analysis are fully considered. There is a series of very useful questions, the answers to which are to be found in the experimental work done, thus stimulating the student to do his work by means of thought, not mechanically.

The author combines chemical analysis with general chemistry, materia medica, physiology, toxicology, thus making a unity of the complete course.

We are glad to note an absence of many unnecessary equations and tables, thereby ensuring more thorough investigation on the part of the student in order to find the results of the volumetric analyses.

The interest is kept up by adding chapters on the testing of water, detection of poisons and analysis by means of the blow-pipe. The latter will prove of especial interest to students of dentistry, by demonstrating the physical and clinical proportions of the metals and their alloys in a manner not possible by the wet methods.

The well-known publishers, P. Blakiston's Son & Co., of Philadelphia, have sent out this book on substantial paper, with large readable type. We are pleased to note in conclusion that the enterprising firm of Chandler & Massey, of Toronto, are the agents for this country. W. H. P.

International Clinics. A quarterly of clinical lectures and especially prepared artices on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and other topics of interest to students and practitioners, by leading members of the medical profession throughout the world. Edited by HENRY W. CATTELL, M.D., Philadelphia, with the collaboration of Jno. B. Murphy, M,D., Chicago; Alex. D. Blackader, M.D., Montreal; H. C. Wood, M.D., Philadelphia; T. M. Rotch, M.D., Boston; E. Landolt, M.D., Paris; Thos. G. Morton, M.D., and Chas. H. Reed, M.D., Philadelphia; J. W. Ballantyne, M.D., Edinburgh; and John Harold, M.D., London, with regular correspondents in Montreal, London, Paris, Leipsic and Vienna. Vol. IV., eleventh series, 1901. Philadelphia: J. B. Lippincott Co. Sole Canadian Agent: Charles Roberts, 1524 Ontario Street, Montreal.

In glancing over the names of the contributors to Vol. IV. of Series XI. of "International Clinics," we find such men as A. Jacobi, Sir Dyce Duckworth, W. S. Gottheil, John B. Weaver, Jas. Cantlie, Chas. H. Burnett, John M. Taylor, Alfred Stengel, Nicholas Senn, John H. Musser and G. Frank Lydston. Vol. IV. covers, as do its predecessors, Therapeutics, Medicine, Neurology, Surgery, Pediatrics and Dermatology. The volume closes with a very interesting chapter on "Methods of Keeping Case Records in Private Practice," by Dr. F. A. Packard, Crozer Griffith, Judson Daland, J. K. Mitchell, Jno. H. Musser and Alf. Stengel. One of the most instructive lectures is one by John M. Taylor on "Deformities in Children, from the Standpoint of the General Practitioner" The author says that it is a safer rule never to allow one's self to be satisfied with casual judgments, however suggestive or satisfying they

may seem, unless one is duly fortified by a critical search over at least the usual clinical landmarks. He states that one of the most unfortunate effects of modern ultra-specialism is the confiding faith which induces both the physician and the patient to wait until some conspicuous deformity is revealed. Dr. Taylor impresses upon his reader how much wiser it is for a medical man to make a thorough search all over the body at first and thus be in a position to correct any deformities in their incipiency.

The Medical Profession in Upper Canada—1783-1850. By Wm. Canniff, M.D., M.R.C.S. (Eng.). Toronto: William Briggs.

The work before us is a handsome volume of nearly 700 pp. The first part deals with the Pioneer Medical men, the second part with the Upper Canada Medical Board, and the third part with Biographical Sketches of early physicians of the Province.

Under these several headings a vast amount of information has been collected. After a careful perusal of this volume, the conclusion is forced upon the reader that the medical men of this Province have taken a very active part in its settlement and in the moulding of its policy.

Name after name of those who took a foremost part in social and political reforms is found to belong to the medical profession. In the War of 1812, in the Rebellion of 1837, in the founding of Upper Canada, in the Union, in the establishment of educational institutions, etc., the names of medical men figure prominently.

It would be quite impossible to give an epitome of this work in a short review. The subject-matter is greatly condensed. We think every physician should have a copy of this work. Indeed, everyone who takes an interest in the history of this Province should read carefully the excellent matter which the author has gathered together. The style is easy and natural, and the numerous anecdotes are well told. The illustrations are many and good; but we miss one man that certainly should have a place—Joseph Workman. When we saw the faces of Richardson, Hodder, Wright, Widmer, etc., there was a feeling of disappointment that Workman's was absent.

The make-up of the book is excellent. It is equal in all respects to the work done by the oldest and best-known publishing house. We heartily commend the work to medical men and lovers of Canadian history.—*Canadian Magazine.*

A Text-Book on Diseases of the Ear, Nose and Throat. By Charles H. Burnett, M.D., E. Fletcher Ingalls, M.D., James E. Newcomb, M.D. With numerous illustrations. Philadelphia and London: J. B. Lippincott Company. 1901.

The intimate relationship between the diseases of the ear, nose and throat renders a conjoint text-book on this subject a desidera-

tum. The names of the editors give authority to the statements in treatment they have endeavored to present those methods of medication and surgery which they believe at once the newest and accepted as the best by leading specialists in laryngology, rhinology and otology. This leads to the shattering of some cherished beliefs, but adds to the value of the work. Dr. Burnett is particularly outspoken, and gives no quarter to the use of hydrogen peroxide in otitis media, and in this we wish "more power to him." Catheterisation and inflation of the ear are both bug-bears to him. He wakens the reader up by saying that "having found all forms of inflation of the tympana are valueless in the treatment of ear diseases, and that in many cases they are injurious, I have abandoned them for the past ten years, and have substituted in their place pneumo-massage of the external auditory canal, and mediately the membrana tympani and ossicula."

There seems to have been a very equitable division of space by the editor and his collaborateurs: 220 pages are devoted to the ear, 242 to the nose and naso-pharynx, 246 to the pharynx and larynx. Dr. E. Fletcher Ingalls has been assisted by Dr. O. T. Freer in the preparation of the articles on the nose and naso-pharynx. It is stated that 30 to 40 per cent. of cases of hay fever may be cured, and 25 per cent. greatly benefited by the application of the galvano cautery, not during the attack, but preceding the expected onset. It may be that they use the galvano cautery more skilfully in Chicago, or perhaps hay fever is milder. It may even be that results look rosier in the States than in Canada, but such a percentage is not seen here. The chapters on diseases of the various accessory sinuses of the nose are interesting, concise and complete. Taken altogether, this book cannot be too highly recommended, for it is concise, yet thorough. J. M. M.

God Wills It: A Tale of the First Crusade. By William Stearns Davis, author of "A Friend of Cæsar." With illustrations by Louis Betts. Toronto: The Copp, Clark Company, Limited. 1901.

The really strong point in this novel is the development of the idea that lay back of the First Crusade. The hard, half-savage races, whose fathers had won Europe from the Romans, and afterwards turned like wolves upon each other, needed some mighty impulse to overcome innate cruelty, treachery, blood-guiltiness and pride, and they found it in an overmastering desire to rescue the tomb of Christ from the Mahommedans. They put on the red cross, and left all to follow Him, but not as gentle pilgrims only; nay, rather as gallant swordsmen who were not unwilling to offer their own blood, as an atonement for sin, and equally anxious to shed that of the accursed Moslem.

Mr. Davis has developed this idea as his background and, in the foreground, presents some taking pictures of mediæval life in

southern Europe and in Asia. To speak in medical parlance, "God Wills It" is a stimulant to be shunned by careful men who like a quiet night's rest, but eminently suited to make the heart throb and the blood bound through the arteries.

There is practically only one woman in the book, but she is altogether too much in evidence; in fact, one might almost imagine that the First Crusade was got up in order to show what the "Star of the Greeks" could do in the art of flirtation.

There is one scene of indubitable pathos—the interview between the Sieur de Valmont, Lady Ide (the mother of the murdered boy, Gilbert Valmont), and Richard Longsword, the boy's slayer—which is quite dramatic, with a nobility of movement, a fidelity to religious feeling, and an old-time simplicity of expression quite enchanting.

J. J. C.

Cliniques Medicales Iconographiques. Par MM. P. Haushalter, G. Etienne, L. Spillmann, Agregés à la Faculté de Medecine de Nancy; et Ch. Thiry, Ancien Interne des Hopitaux de Nancy. Paris: C. Naud, Editeur.

It is seldom that an atlas comes to hand which is more satisfactory with its representations of the progressive forms of paralysis, as shown not only in the cuts, but also in the description, which is exceedingly concise and greatly to the point. It is possible that the general practitioner may not wish to make the sharp distinctions and minute classification which is done by specialists, but as there is liable to come into the office of any practitioner just such cases the library of every man in the practice of medicine and surgery would be wisely increased by adding this atlas on clinical medicine. These cases occur with sufficient rarity to make them rather unfamiliar to the ordinary practitioner, and even to such men in the profession as see a good deal of referred practice. A diagnosis sufficiently accurate as to be able to give an intelligent prognosis is a matter of great interest, not only to the family, but of interest and safety to the practitioner on whom devolves the responsibility for giving advice. I would strongly recommend the purchase of this work, even by those who cannot read the French text. The various cuts given are certainly "speaking likenesses" of the patients affected with these atrophic muscular paralyses.

B. E. M.

Kirke's Handbook of Physiology. By W. D. Halliburton, M.D., F.R.S., Professor of Physiology, King's College, London. Seventeenth edition, with 681 illustrations. 18mo, 888 pages. Published by P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia. 1901. Price, in cloth, $3.00 net. Canadian Agents: Chandler & Massey Limited, Toronto and Montreal.

"Kirke's Physiology." How few of those of us who were medical students in the eighties can deny, even if we wished, that all we

learned of physiology in those days was taught us from reading this book. The medical students of nearly a quarter of a century ago knew little also in physiology but Kirke, and little wonder, as even though it has now been published in its 17th edition, an honor accorded to but few medical works in existence, if any, it still presents the subject in a concise and attractive manner and makes the volume one to be enjoyed rather than otherwise. The study of physiology is one like medicine, which is ever deepening and requires almost constant study. A work on the subject written but a year or two ago would require revision, so that it is little wonder that Dr. Halliburton felt the necessity of almost rewriting Kirke's Handbook, though it is but a short time since the 16th edition came from the press. In order to keep the book what it was originally intended it should be, a student's manual, the author, in order to make room for new material, has had to cut out what was old and pare down all extraneous matter. This he has accomplished most successfully, and now gives the medical student a book which he will find more than sufficient to put him through his examination, and the profession a digest of the subject which will be found both modern and practical.

Directions for Class Work in Practical Physiology. Elementary Physiology of Muscle and Nerve, and of the Vascular and Nervous Systems. By E. A. SCHAFER, LL.D., F.R.S., Professor of Physiology in the University of Edinburgh, formerly Jodrell Professor of Physiology in University College, London, Eng. With diagrams. New York: Longmans, Green & Co., 91 and 93 Fifth Avenue; London and Bombay. 1901.

The author has collected and simplified the more elaborate technique in experimental physiology of the muscular, nervous and vascular symptoms, and with appropriate illustrations has provided teachers and students of physiology with a book which cannot but be of the greatest benefit. His world-wide reputation as a teacher of general anatomy goes a long way as a recommendation of the value of this book which, though small, is very comprehensive. There are several text-books dealing with the same subject, but they are all more elaborate and concern themselves with many problems which the average medical student cannot be expected to investigate for himself. A. J. H.

Rough Notes on Remedies. By WM. MURRAY, M.D., F.R.C.P. (Lond.), Newcastle-on-Tyne. Fourth edition. London: H. K. Lewis, 136 Gower St., W.C. 1901.

The fourth edition of "Rough Notes on Remedies" contains an additional chapter on "Rothbury as a Health Resort." The clinical actions of various drugs are given by the author from his own experience, which has extended over many years as a general practitioner, and should serve as a stimulating example to the practi-

tioner in general to record and publish his experience with the various drugs which he uses in his practice. "Full many a flower is born to blush unseen and waste its sweetness on the desert air." Many practitioners find out useful therapeutical actions of drugs, and never think what a boon it might be to humanity at large if they would only publish their discoveries in some current medical journal and thereby enrich our knowledge of therapeutics and help their fellow-practitioner at the same time. Dr. Murray is very fair in his opinions as to the action of arsenic in diabetes, chorea and asthma; of belladonna in the removal of renal calculi, of mercury in heart disease, of calomel in large doses, of nitrate of silver in epilepsy, and turpentine in pneumonia. He also writes an interesting chapter on "Our Mistakes." This latter is a subject which we could all very entertainingly write on. I am of the opinion that this style of book if seen more frequently would find a ready welcome in the greater number of instances.

A. J. H.

Essentials of Physiology. Prepared especially for students of medicine. By SIDNEY P. BUDGETT, M.D., Professor of Physiology in the Medical Department of Washington University, St. Louis. Arranged with questions following each chapter. Illustrated. Philadelphia and London: W. B. Saunders & Co., 1901. Cloth, $1.00 net. Canadian Agents: J. A. Carveth & Co., Toronto.

The main features of physiology are described briefly in this little book. It is not simply a question-compend, but it is a short text-book which deals only with essentials of physiology. A list of questions is introduced at the end of each chapter. These are selected with the view of fixing the leading facts and topics more firmly in the student's mind as he reviews each subject after reading and studying it in the text. The chapter on the nervous system contains several fine illustrations that have been made with care, and are very useful in explaining the text. When properly used along with a more elaborate and complete work, this is a very useful and desirable help for students of physiology. A. E.

A Manual of Minor Surgery and Bandaging. For the use of House Surgeons, Dressers, and Junior Practitioners. By CHRISTOPHER HEATH, F.R.C.S., LL.D., Consulting Surgeon to University College Hospital, and Emeritus Professor of Clinical Surgery in University College, London. Twelfth edition. Revised by BILTON POLLARD, F.R.C.S., Surgeon to University College Hospital, and Teacher of Operative Surgery in University College, London. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia. Cloth, $1.50 net.

There have been enough books on Minor Surgery written to fill a small-sized library, but Heath's is one of the best, as is evidenced by the fact that it is now in its twelfth edition. In the

introduction there is a great amount of useful information for the guidance of a house surgeon as to his duties. It even goes so far as to point out under what circumstances a house surgeon may secure fees for evidence in legal cases, a *minor* point often left out in the voluminous "rules and regulations" of certain antediluvian hospitals.

The book is profusely illustrated, and full of valuable, explicit information, and should be in the possession of every house surgeon and young practitioner. The chapter on Casetaking is important, and should be well impressed on the mind of every house surgeon, for then he will be the better able to keep track of his cases when he goes into practice. F. N. G. S.

Da Costa: Clinical Hematology. A Practical Guide to the Examination of the Blood with reference to Diagnosis. By JOHN C. DA COSTA, Jun., M.D., Assistant Demonstrator of Clinical Medicine, Jefferson Medical College: Hematologist to the German Hospital, etc. Containing 8 full-page colored plates, 3 charts and 48 other illustrations. Octavo, 450 pages. Published by P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia. 1901. Price, $5.00 net. Canadian Agents: Chandler & Massey Limited, Toronto and Montreal.

It is but recently that much attention has been devoted to the subject of blood examination as a guide to the diagnosis of disease. There is no question that much valuable information can be gained by a careful examination of the blood, and just as soon as it becomes a usual habit on the part of the practitioner to resort to this procedure, we feel that many systemic conditions will be the more fully understood and the cure of many diseases the more readily accomplished. Dr. J. C. Da Costa presents to the profession a work which, to say the very least of it, is thoroughly practical and shows how important a part in clinical work the blood report should form. He shows, however, that hematology is as yet in a transitional stage; but that ere long it must become inseparably associated with the treatment of each individual case and will undoubtedly lead to a far larger percentage of correct diagnoses.

New Canterbury Tales. By MAURICE HEWLETT. The Copp, Clark Company, Limited.

The new Canterbury Tales were evidently not written with a view to filling the spaces on the shelves of a Sunday School library. The scrivener's tale of the Countess Abys is a story of an accused and suspected, though innocent woman, who is forsaken by her husband, and he in turn is killed by her brother, disguised, but in open combat. She then weds her children's tutor, and they depart and "live happy ever after."

The Prioress of Ambresbury's tale would have been better unprinted. It is neither edifying nor brilliant, and borders closely on the blasphemous. In the publication it is difficult to see what the object or intent of the tales is. I can't. Perhaps some other unfortunate will try. F. N. G. S.

Young Barbarians. By Ian Maclaren. Toronto: The Copp, Clark Company, Limited.

Suitable reading alike for old and young, but especially interesting to those who love Scotland and the characteristics of the worthy Scot. Ian Maclaren's amusing description, in a few paragraphs, of John Manley, M.D., of Edinburgh, is worth the whole price of the book. Every physician should read it, especially if he happens to have a patient's funeral on hand. This fine old doctor regarded "the idea of any person below eighty dying on his hands as a piece of incredible impertinence." W. A. Y.

Maladies de la Voix. Par le Dr. André Castex, Chargé du Cours de Laryngologie à la Faculté de Médecine de Paris. Paris: C. Naud, 3 Rue Racine. 1902.

Our readers will find this a most interesting book, treating as it does of the diseases of the voice, especially as found among professional voice users, viz, musicians, clergymen, lawyers, teachers. It is a subject little written about in English, except as affecting the singing voice. Not the least valuable part of the work is the bibliography in which about the only English names are those of Morell Mackenzie, Lennox Browne and Holbrook Curtis.

J. M. M.

LITERARY NOTES.

It will be a pleasure to our readers to know that Prof. Alex. McPhedran, of Toronto, will have an excellent article in Volume I., Twelfth Series of "International Clinics," to be published next month. In that volume also there will be somewhat of a new departure, consisting of a short description of the methods of some of the leading men of the profession in the United States, with photographs of them at work. Dr. Wm. Osler, of Baltimore, is to contribute an article on a subject to be announced later, and which will appear in one of the 1902 volumes. Dr. Howard A. Kelly will give a series of gynecological clinics, to be illustrated by his own artist, and there will be also articles by such men as Drs. W. S. Halsted, W. S. Thayer, John C. Hemmeter and Thomas R. Brown. The April volume of "Clinics" will also contain an article on the advances in medicine and surgery during 1901. It will, therefore, be seen that "Clinics" for the current year will rather exceed than otherwise the standard of excellence of former series.

The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF MEDICINE AND SURGERY

VOL. XI. TORONTO, APRIL, 1902. NO. 4.

Original Contributions.

TRANSPLANTATION OF URETERS INTO THE RECTUM FOR EXSTROPHY OF THE BLADDER—BY THE AUTHOR'S EXTRA-PERITONEAL METHOD.—THREE ADDITIONAL CASES.*

BY GEORGE A. PETERS, M.B., F.R.C.S. (ENG.),

Associate Professor of Surgery and Clinical Surgery, University of Toronto; Surgeon, Toronto General Hospital; Surgeon, Hospital for Sick Children; Surgeon, National Sanitarium for Consumptives.

IN the issue of the *British Medical Journal* of June 22nd, 1901, I reported a case (Case No. 1) of the above-named operation performed on a child, B. S. G., aged five, on the 15th July, 1899. It is now more than two and one-half years since that operation was performed, and the boy remains in perfect health, is growing normally, and to all appearance is as healthy and strong and happy as any other boy of his age. (Patient exhibited.)

Recently three other cases of exstrophy of the bladder have been under my care, and have been submitted to the same operation, with results up to the present very satisfactory in two cases, while operation in the third case was followed by death on the fifth day, from acute ascending infection.

The method of performing the operation in these three cases was practically the same as that described in the article above referred to, and for the benefit of those not familiar with this article, may be briefly summarized as follows :

The first step of the operation is to insert a soft rubber catheter, about No. 5 to 7, into each ureter, passing it in about 2 1-2 or 3

* Read before the Toronto Medical Society.

inches, so that its upper end reaches beyond the curve of the ureter over the brim of the pelvis. The catheters are stitched in by passing a very fine silk suture through the wall of the catheter, and then through the wall of the papilla, so as to take a fairly good grip. The object of thus stitching the catheters into position is that they may not become displaced while the transplantation is being made, but may remain in position for from 24 to 60 hours, and thus drain away all the urine out of the anus after the operation is completed. (Though I have always followed this method, my experience in Case 4 makes me question whether it would not be well to dispense altogether with the use of the catheters).

The next step consists in dissecting out the distal ends of the ureters with a fair-sized rosette of the adjacent mucous membrane and muscle wall of the bladder. In making this dissection, my experience teaches me that the safest and easiest method is to commence the dissection at the portion of the papilla nearest the pubes, as it is quite certain that here, at all events, the ureter will be uncovered by the peritoneum. One soon enters a cellular space through which the ureter with its contained catheter can be easily felt, and with the finger in this space the dissection is proceeded with, being exceedingly careful not to injure the peritoneum, which lies very close to the ureter at the upper part. However, with care there is, I think, practically no danger to the peritoneum, and in none of my cases have I any reason to suspect that the membrane was injured or molested. It will be found when the circular rosette of bladder tissue has been completely separated, that the remainder of the ureter can be easily dissected free, and care should be taken without any traction to follow it back in its curve, so that it will, when transplanted into the rectum, run practically in a straight line from the brim of the pelvis to its new situation in the wall of the rectum.

This part of the operation having been completed on both sides, the surgeon's attention is next directed towards laying bare the lateral wall of the rectum. This must be done largely, of course, by blunt dissection, and the process is very greatly facilitated by the presence of one finger of the operator or his assistant in the bowel. The absence of the pubic arch renders it comparatively easy to lift the rectum towards the wound of operation, and thus bring it almost to the surface. If care is taken to keep well to the lateral aspect of the pelvis during this dissection, and to approach the rectum from this direction, the peritoneum is not endangered, but this portion of the operation should be conducted with extreme care, as it is difficult to tell how low down the peritoneum may reach in these abnormal cases, and the essence of my operation is its completely extra-peritoneal character.

The point selected for planting the ureter is that on the lateral

aspect of the bowel (Fig. 2, B), just above the internal sphincter, and it has been found in every case that the ureter could be brought to this position without the least trouble.

Having thus determined upon and exposed the seat of implantation, a pair of forceps is passed into the rectum, and pressed against the selected spot. A slight cut is now made from the external wound upon the end of the forceps ; this is forced through, and the little wound dilated very accurately, so that it will receive snugly and yet without compression the ureter with its contained catheter. The forceps is then passed through and made to seize the end of the catheter, and this is drawn through the rectal wound and out of the anus. The forceps is then passed back beside the catheter through the same opening and made to grasp lightly the distal end of the ureter, or rather its rosette of bladder tissue, and this is now carefully conducted through the opening and made to protrude into the rectum. Very great care should be taken not to injure the ureter during this operation.

The same tactics are repeated upon the opposite side, and thus the ureters are drawn through so that their distal ends together with the rosette of bladder tissue, are made to project into the rectum as two prominent papillæ (Fig. 2, B). The catheters, of course, pass out through the anus, and are directed into the mouths of separate bottles containing a solution of carbolic or boracic acid. In this way one can ascertain that both kidneys are working, and if one catheter should become plugged (as happened in one of my cases) with urates or phosphates, it may be immediately withdrawn.

It will be observed that no effort is made to stitch the ureters into position. In fact, I have not found this at all necessary in any case. There is nothing to cause them to move out of their position, and the vitality of the ureters is not impaired by the traumatism which would result from such suturing. In order, however,to support the delicate ureters in their new position, and to prevent the injurious effects of any extravasation that may occur from the rectum to the wound in the pelvic cellular tissue, the wounds are packed on each side fairly firmly with iodoform gauze. This is left in position for two or three days, and when removed it is found that the parts fall together without, as a rule, allowing any extravasation from the rectum; or if there should be any, as happened in my third case, the gauze affords sufficient drainage, and the wound heals quickly by granulation.

The treatment of the exstrophied bladder tissue will depend upon the amount of bladder tissue exposed, and upon the extent of the hiatus in the abdominal wall. In my first and third and fourth cases, I found that all that was necessary was to dissect away the exposed mucous membrane of the bladder, which in these

three cases was not of any great extent, and allow the whole to heal by granulation. In my second case, however, the closure of the hiatus in the abdominal wall called for a very considerable plastic operation, which I shall presently describe.

Case 2.—G. R. H., male, aged 13. His family history is good. He has five brothers and two sisters all healthy. He is the youngest of the family. There is nothing in the personal history of any importance except the physical condition for which he entered the hospital, viz.: exstrophy of the bladder, which is, of course, congenital. He was at the time of admission a fairly well-developed boy, but had an extremely listless, depressed and ashamed appearance. He shrank from looking at any one, would not enter into conversation if he could help it, and evidently was extremely conscious of and sensitive to his defective development. He was attired partly in female garments, and altogether presented an aspect such as to excite pity.

On examination it was found that the exstrophied bladder was of considerably more than the average size, being about 3½ inches in diameter, and more or less circular in outline. The ends of the pubic bones could be plainly felt, being separated in an interval of about two inches, the symphysis, of course, being entirely absent. The bladder bulged forward in the erect posture to a considerable extent, constituting a partial hernia at the part. The urethra was, of course, merely represented, as in all these cases, by a slight gutter, which occupied the upper aspect of the imperfect penis, and the prostate with its normal openings could be seen at the junction of this gutter with the bladder. The ureters ended in two quite prominent papillæ, from which the urine escaped more or less constantly, but with slight intervals, representing, no doubt, the peristaltic action of the ureters. The exposed bladder-wall was ulcerated over about one-third of its area, and was exceedingly sensitive to the touch, so much so that the patient was extremely apprehensive of any attempt at examination, and also suffered in walking from the mere contact of the dressings applied to collect the urine. The skin also of the pubes and scrotum was eczematous.

The operation as above described was performed on the 7th October, 1901. The catheters which had been fastened in the ureters, and projected from the rectum, came away spontaneously on the 9th, about 30 or 36 hours after the operation. No attempt was made to reinsert them in the ureters, but a tube was placed in the anus so as to drain the rectum constantly for the next two days. After that the urine was allowed to accumulate in the rectum. The packing placed in the wound was removed on the third day, and a small amount of gauze was re-packed in these openings for the purpose of drainage. No extravasation of urine whatever took place, and the wounds healed rapidly by granula-

tion. At first the urine came away almost constantly, the sphincter ani apparently having but little control of it. At the end of a week, however, he had very fair control, and could hold the urine without difficulty for an hour or two.

On the 17th October, ten days after operation, the history states that the patient passed urine only three times during the day and twice during the night, and on the 19th it is noted that he passed it three times during the day and four times at night. Up to this time the patient had usually passed fecal matter with the urine, but now he has noticed that frequently the evacuations contain urine only without any considerable admixture of feces.

On November 3rd, that is, a little less than a month after the operation, it is noted that he can hold his urine four or five hours without difficulty, but that he has better retentive power during his waking hours than during sleep. However, his control is perfect, so that he on no occasion soils the bed or his clothing. There is no irritation whatever about the anus, nor does the patient suffer any pain in the rectum or at the anus, either before or during evacuation.

On November 19th an operation was performed to remove the mucous membrane of the bladder and to close the hiatus in the abdominal wall. This was done in the following way: An incision was made at the edge of the skin, removing the narrow area of scar tissue between that and the bladder mucous membrane, and continuing the dissection over the whole of the exposed area of the bladder wall. This was done by a very careful and laborious dissection, as it was found extremely difficult to separate the bladder mucous membrane from the remaining coats, and it was deemed desirable to leave, if possible, all the muscular and fibrous elements of the bladder tissue for the sake of strength to the abdominal wall at this part. The dissection was accompanied by a great deal of capillary bleeding, which was stopped by pinching with forceps and twisting. Having removed the whole of the mucous membrane, two lateral flaps were raised by dissection so as to close the hiatus by a sliding movement towards the middle line. These flaps were made to include the whole of the skin, and every particle of fascia that could be raised from the muscular structures of the abdominal wall, and the undermining extended as far outwards as the anterior superior spine of the ilium on each side, and as low down as the lower border of Poupart's ligament. The parts were brought together in the middle line by means of relaxing and coaptation sutures. In removing the mucous membrane, the operator was careful not to encroach upon the openings of the seminal vesicles in the rudimentary prostate, so that this part of the mucous membrane, as well as the floor of the urethra, are still left.

The patient recovered from the operation promptly, and the

wound healed slowly but satisfactorily, though not without some suppuration. It is now soundly healed, and the abdominal wall seems firm and good over the former hiatus.

On December 8th, two months after operation, the following note is made: The patient has had on an average during the past two weeks six evacuations in each twenty-four hours, the time between evacuations varying from two to six or eight hours. He is now up and walking about, without pain and without discomfort. His mental condition is improved in a very extraordinary degree. He is now bright and cheerful, takes an interest in his surround-

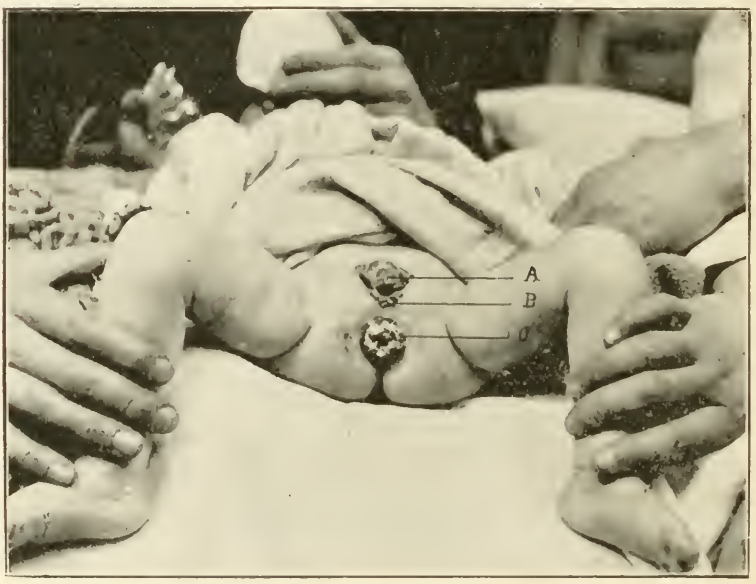


FIG. 1.—Exstrophy of the bladder in A. N., a female child, aged one year (Case No. 3).
A, the exposed mucous membrane of the bladder.
B, the introitus vaginæ, with the rudimentary labia majora at either side. Immediately above B is the inferior segment of the urethra.
C, a slight procidentia recti, cured before the transplantation by Van Buren's method.
Note the wide separation of the thighs due to the imperfection of the pelvic arch.

ings, converses agreeably with his fellow patients, and is learning to read, and altogether to take a more intelligent and active interest in life.

March 3rd, 1902, five months after operation. The patient's father writes me that his son is perfectly well and able to retain his urine without discomfort for from two to six hours during the day, and that he is seldom disturbed at night by a desire to empty the cloaca.

CASE 3.—Ada N., aged one year, female. Operation October 26th, 1901. The principal interest attaching to this case is due to the fact that it shows the possibility of performing this extra-

peritoneal operation with safety in the female as well as in the male, and in children of very tender years. However, though this case terminated successfully, I would not again attempt the operation on so young a child, unless the conditions were extremely urgent. The operation is one which calls for very delicate handling of parts so fragile as those of a child of this age, and the handling of the ureters, and the passage of catheters into them is not unattended with shock, which, of course, is ill-borne by so young a patient. Children of this age are, moreover, subject to the penalties of teething, and in the case now reported the main troubles of the patient seem to be traceable to that condition.

The operation performed on this little patient differed in no respect from that previously described, except in the fact that great care had to be observed in passing down to the rectum by the side of the vagina. However, this was safely accomplished; the rectum was reached without encountering the peritoneum; and the transplantation was made in precisely the same way as that above described. Here again it was found perfectly easy to bring the ureters down very close to the internal sphincter, where the transplantation was made. Though the vagina escaped injury during the transplantation, a slight wound was made in it in the act of dissecting away the remains of bladder mucous membrane, which in this case was very small in amount. However, this wound seems to have healed kindly, leaving a patent vagina. In this case one of the catheters became plugged with urates at the end of forty-eight hours, so that no urine whatever came from it. Both catheters were consequently removed. The packing was not removed in this instance till the third day, and on the left side some extravasation of urine, and a little fecal matter occurred, and persisted for some weeks. Ultimately, however, the fistula closed spontaneously. I attribute this leakage to the fact that probably the opening into the wall of the rectum on the left side had been made rather too large. It is quite clear, I think, that had the peritoneum been wounded in this case death from peritonitis would have resulted from this leakage.

The subsequent history of this case could not be described as uneventful, but the least of the child's troubles were those pertaining directly to the operation. In fact, as far as the operation area itself was concerned, the result was, with the exception of the occurrence of the fistula above noted, quite satisfactory. The other troubles from which the child suffered need not be described in detail, but may be noted as consisting of bronchitis, swollen gums apparently accompanied with great pain, double purulent otitis media, and worms. However, the child gradually survived all these conditions, and was taken to her home ten weeks after the operation, in very fair and rapidly-improving health.

The day before she left the hospital I examined the rectum with the finger. On the right side there was a prominent papilla, representing the lower end of the implanted ureter; on the left side the papilla could be felt, but was much less prominent. The fistula above referred to had entirely closed, and the patient's general health was improving rapidly. There was a slight degree of irritation between the nates, but not immediately around the anus, and not more than is frequently present in children of this age. The child apparently had complete control of the sphincter, but evacuations occurred every hour or two. She seemed to suffer no pain or discomfort from the presence of the urine in the rectum.

February 24th, 1902. Four months after operation. The mother writes me that the babe is gaining in strength and weight, "quite smart and lively," beginning to walk, and able to hold the urine from one to four hours during the day, and sometimes for half the night.

Case 4.—R. B., male, aged 4 1-2 years. This case of exstrophy of the bladder upon whom I proposed to operate seemed to me to be the most hopeful subject that I had yet attempted, but the event proved that a fatal issue followed on the fifth day, clearly from one of the greatest dangers of any operation for transplanting the ureters in the rectum, viz.: an ascending infection which reached the kidneys. The anatomical condition was a typical one, and need not be further described.

The operation was performed on January 24th, 1902, and was done precisely as narrated in the preceding cases. The whole of the bladder tissue was removed with ease, and the raw surface left was brought together by silk worm-gut sutures from above downwards, so as to convert the wound into a line running transversely. The central portion of the wound was left unstitched, and packing of iodoform gauze was placed in its depths down to the level of the point of implantation of the ureters. The child seemed to recover well from the shock of operation, and the next day was fairly bright and took nourishment well. He had some vomiting, which continued for twenty-four hours. The catheter on the left side came out in about eighteen hours after the operation, and no attempt was made to replace it, but a tube was placed in the rectum to drain away the urine which poured out from the left ureter. This seemed to act perfectly well. Twenty-four hours later the other catheter came out, but the rectum continued to be drained by means of the tube, and this appeared to work quite satisfactorily. On the second day after operation he began to become drowsy, and this condition deepened continuously until the time of his death. His temperature rose before death to 101 4-5ths, which is the highest point recorded.

The amount of urine decreased, though it never ceased alto-

gether, and never had the appearance of containing blood. He did not suffer from vomiting, diarrhea, or convulsions, and, in fact, almost the only uremic symptom which was present was the coma, and this was never very profound. His death took place on the morning of the fifth day after operation.

Post Mortem Examination.—The external wound was perfectly healthy in appearance, and on removing the stitches it was found

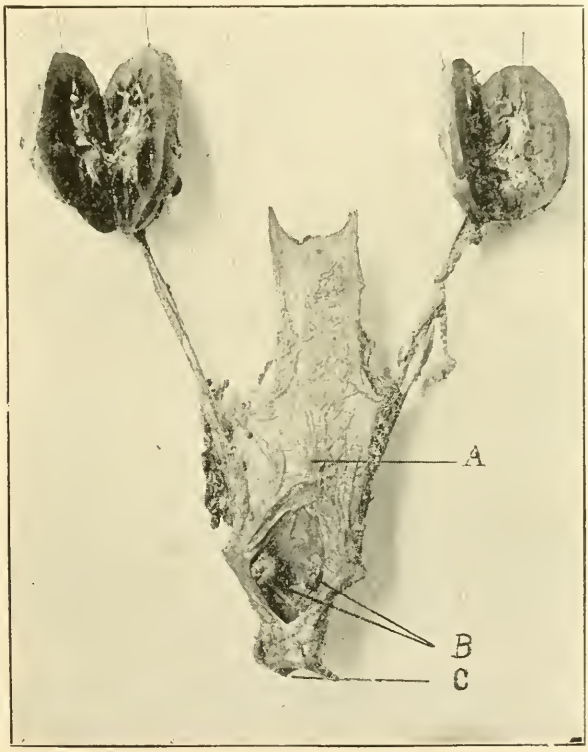


FIG. 2.—Specimen from R. B. (Case No. 4).
A, rectum laid open along its posterior aspect.
B, the prominent papillæ, consisting of the ends of the transplanted ureters with a rosette of bladder tissue. (Note that the implantation is upon the lateral aspect of the bowel.)
C, the anus. The stretching of the specimen in preparation makes the implantation appear unduly high in the bowel.

that healing was advancing quite satisfactorily. There was no suppuration whatever, nor was there the least extravasation of urine from the rectum into the wound. On opening the abdomen, it was found that the peritoneum was perfectly healthy, and that the operation wound had not in the slightest degree injured that membrane. The kidneys were found to be swollen and deeply congested, presenting evidence of active inflammatory infection. There was fibrinous material. The ureters contained a few drops of urine,

which was loaded with germs, apparently from the rectum. There was no obstruction of the flow from the ureters, as would have been indicated by dilatation of these tubes and the pelvis of the kidney. On removing the kidneys, ureters, rectum and anus, it was found that the implantation had been carried out in a thoroughly satisfactory manner. The papillæ, as seen in the photograph (Figure 2, B) presented quite prominently on the rectal mucous membrane. They were clearly in a viable condition, and if the patient had survived certainly would not have sloughed, but would have persisted as prominent papillæ, as I have described as occurring in my other cases. The rectum itself showed no signs of inflammation, nor was there any eczematous condition about the skin of the anus.

Pathological Report by Prof. J. J. McKenzie, University of Toronto: The gross condition of the kidneys is one of acute nephritis, with some dilatation and congestion of the ureters; the right kidney showed somewhat more acute change than the left.

The microscopic examination of the fluid in the pelvis of the kidneys showed the presence of large numbers of bacteria, red blood corpuscles and masses of epithelium mixed with crystals of ammonio-magnesium phosphate and of uric acid.

Cultures from the pelves of the kidneys showed that the bacteria which were present were chiefly of four types, viz.: the commonest form was a variety of the proteus bacillus; with this was associated the colon bacillus, a staphylococcus and a streptococcus.

A study of the sections showed a condition of diffuse nephritis which was most marked in the pyramids; there was an almost complete desquamation of the epithelium in the larger collecting tubules and papillary ducts; the latter contained, besides masses of epithelium, zoogleal collections of bacteria which consisted largely of bacilli.

Judging from the results of *post mortem* examination, and from the bacteriological examination which was made for me by Professor McKenzie, I have not the slightest doubt that this case proved fatal through an infection which spread up from the rectum through the ureters to the kidney. As I have stated above, I am strongly disposed to think that this might not have occurred had I not inserted the catheters, as the presence of these tubes prevented the papilla-valve from acting properly.

Remarks.—In the description above given of the method of performing this operation, it will be noticed that I have departed slightly from that given in regard to my first case.* Fuller experience has taught me that though it is desirable to dilate the sphincter, it is not necessary to insert the sponge in the rectum, as therein advised. It is, however, advisable to wash out the rectum as well as possible by an enema given some hours previous to the operation;

* *British Medical Journal*, June 22nd, 1901.

and again, at the time of operation, to allow some mild antiseptic like boracic acid to flow in and out of the rectum to render it as nearly aseptic as possible. Again, in the detail of making the wound in the wall of the rectum and drawing the catheter and ureter into it, I think it is distinctly better for the surgeon to have his own finger in the rectum, allowing his assistant to do whatever may be necessary in the part of the wound above the pubes.

In a paper of this kind it is, of course, impossible to go fully into the literature of the subject, or even to mention all experimental and clinical work that has been done in this direction. I would refer those specially interested to a paper entitled, "Anastomosis of the Ureters and the Intestine," by Peterson, of Ann Arbor, formerly of Chicago. Peterson's conclusions refer to the exceedingly high mortality of the operation both in animals and in man; to the difficulty of technique, and to the very great danger of renal infection following the operation. He concludes, in fact, that the operation is unjustifiable in cases of exstrophy of the bladder, vesico-vaginal or uretero-vaginal fistula, or of malignant disease of the bladder, but he favors the performance of what is known as "Madyl's Operation," viz.: the transplantation of a vesical flap, including the urethral orifices, into the descending colon. He argues that there is no valve guarding the vesico-urethral orifice, and that neither the circular muscular layer of the ureter, nor the bladder muscles themselves, act as a sphincter.

As a result of my experience of these four cases *in the human subject,* I have reached widely different conclusions, and, in reply to objections, I would point out that the operation which I have described includes the natural termination of the ureter on the bladder mucous membrane, and that whatever virtue there may be in this peculiar termination is retained when the transplantation is completed by my method. Moreover, it is not possible for me to see what advantage there can be to the patient in retaining the trigone of the bladder itself. The operation as described above does not involve any section of the ureter, and maintains its circulation complete to the point at which its vessels anastomose with those of the bladder, thus obviating the danger of sloughing.

In one part of his paper he points out that any portion of the ureter projecting into the rectum will in any event slough off. Doubtless this may be true when the ureter is divided at any point in its continuity, but I am able to prove by my cases that when the papilla, with a portion of the bladder tissue surrounding it is implanted into the rectum, such sloughing does not occur, but the papilla remains (Fig. 2, B), and its mucous membrane in process of healing becomes continuous with that of the rectum, thus perpetuating a papilla similar to that by which all mucous ducts terminate

upon a mucous membrane, such as the bile duct and the salivary ducts. I argue, moreover, that such a papilla *does* constitute a real and efficient valve; that it presents a very great obstacle to the spread of septic infection up the ureters, and I am disposed to think that, in Case No. 4, the rapidly fatal ascending infection might not have occurred if I had made the implantation without the use of the catheters in the ureters. Theoretically, the presence of the catheter prevents the action of the papilla-valve, and so fully convinced am I of the efficacy of this valve, that in future cases I contemplate trusting solely to a tube in the rectum to carry off the urine, and so prevent its filtering through into the anterior wound. Even if the latter undesirable event should happen, the peritoneum is so safe, and the drainage so good, that little harm can result beyond delay in healing. In order to secure easy evacuation, and thus minimize the danger of squeezing any of the contents of the cloaca into the lateral wounds, I also think that the sphincter should be gently stretched at the time of operation. Moreover, my first case, now of more than two and one-half years' standing, shows not the slightest sign of any infection of the kidneys, nor do my other surviving cases of five and four months' standing respectively.

In conclusion, I submit that, by the method above described, one of the greatest dangers of the operation of implanting the ureters into the rectum in the past, viz: peritonitis—is practically eliminated, and that the other, viz.: ascending infection, while it will perhaps never be eliminated, is thereby reduced to a minimum.

From the point of view of the comfort and happiness of the patients, the result in the successful cases leaves nothing to be desired. They are able to retain the urine almost as long, and apparently quite as comfortably, as in the normal bladder. From being pitiable, useless—often disgusting—objects, they are converted into useful citizens able to take their part in life with comfort and self-respect.

102 College Street, Toronto.

SEWAGE PURIFICATION.*

BY P. H. BRYCE, M.D.,
Secretary Provincial Board of Health.

Mr. Chairman and Gentlemen,—Your Committee on Sewage desires to present a brief report on the present status of the work of sewage disposal as it exists in the Province.

During the last twenty years many special reports on this subject have been prepared, dealing with either the general principles of purification, or some special method which has been adopted in some particular instance.

These have ranged from the broad irrigation of lands for growing Italian rye grass to chemical methods for precipitating sewage or electrolytic processes of sterilization with subsequent deposition of sewage.

With the progress of modern ideas relating to the decomposition of organic matter through the agency of nitrifying microbes, the attention of Government and municipal health authorities everywhere has been turned to the study of these biological processes, with the result that on every hand experiments are being carried out, or experimental purification plants installed, to test the practicability of this natural process for dealing with sewage under all or any conditions which may occur in any town or city.

It will be evident that in this as in any other matter, there may be so many varying conditions and climates as regards soils, meteorological conditions, character of the manufacturing processes in the different places, that no hard-and-fast method can be made suitable to every case.

Probably the greatest immediate difficulty in dealing with the sewage of many of the larger cities lies in the fact that in all of them the sewers first built have been with a view to dealing with storm water as well as with house sewage. However good an end may thus have been served in rapidly removing the water from the streets, it has not wholly served the intended purpose, since in almost every city the main sewers, however large, have at times proved unable to carry away the water in the heaviest rainfalls, thereby causing the flooding of cellars and other damage, but they have created several other objections:

1. That the cost has greatly delayed the adoption of general sewerage systems.

2. That the sewers which, during the greater number of days are dry weather sewers, have but a small portion of their area filled with water, and hence are filled with foul air, largely the result of a microbic decomposition.

* Read at the first quarterly meeting of the Provincial Board of Health, January 9th, 1902.

3. That these gases being kept from passing upward through the soil pipes, since few towns have adopted the outside vent to the house sewers, are forced out of the manholes, creating ill-smelling and dangerous nuisances at the street level.

4. They have enormously increased the difficulty of the problem of dealing with the sewage at the outfalls. In order that the problem of sewage disposal, apart from forcing the sewage into lakes and streams, may be dealt with economically and effectually, it is apparent that it will be necessary to consider how some of the difficulties incident to combined systems may be lessened, while it is apparent that the very necessity for dealing with the sewage in any new system will inevitably prevent new towns adopting any but the separate system.

Taking Toronto as our largest city in which the evils of the combined system exist, it will be apparent that if the traps were taken off the house drains, and each allowed to be a ventilator to the sewer, that the removal in this way of sewer air would result in the sewer air being largely replaced by fresh air passing in at the manholes, and at once removing the ill-smelling gases discharged at the feet of the passer-by.

The second, and by far the most immediate necessity, is for checking at once the enormous waste of water by placing a meter on each water service. If by this means the waste of water could be reduced by fifty gallons per head daily, still leaving fifty gallons. or twenty more than is allowed the citizens of most English cities, and a few American ones, it is quite clear that the economy in the cost of pumping would leave an amount which would go far to pay the interest on the expenditure necessary to pay for disposing by some proper system of the sewage at one or more sewage outfalls.

To make the case plain, it is found that the coal consumed in Toronto, in 1900, amounted to 12,000 tons, at a cost of $38,668.54, or reducing this amount by one-half, there would be enough to pay interest on nearly $750,000 at 3 per cent.

It is simply amazing that year after year such primary principles are neglected, keeping the tax-rate high, and making it more difficult for the people to proceed to the second point of adopting some adequate scheme of sewage disposal. If, in addition, in the case of Toronto, the amount yearly wasted in dredging the slips were added, it is probable that sewage disposal works could be carried on without any outlay greater than that wasted to-day in unnecessary pumping. But this is only the beginning of the economy, for if the amount of sewage passing into the sewers were reduced by 50 per cent. the amount of liquids to be dealt with as sewage would be reduced by one-half.

Proceeding, however, to the problem of sewage disposal, it may at once be said that to-day there are but two methods of sewage disposal being considered anywhere, viz., that of disposal on sewage farms of wide enough extent to enable purification to take place without any local nuisance, and the cultivation of crops to repay

in whole or in part the outlay: and that of tanks where the sewage is allowed to decompose, thereby becoming largely liquefied, the liquid containing the organic matter in solution being subsequently carried to areas of land for purification, cultivation of crops being carried on at the same time, or placed on filters of sand, gravel, cinders or coke, there to be purified by aërobes, completing the nitrifying or purifying process during filtration, a series of beds being flooded at regular intervals.

That these methods are practicable, may be seen at the experimental station of Lawrence, Mass., where the work has gone on without interruption for ten years, and in several towns of that State, while in Ontario we have examples of what may be accomplished in the Sewage Farm at the London Asylum for the Insane, at Berlin, at Stratford, and in the works just completed at London.

An illustration of the best which may be expected from chemical filtration can be seen in the costly plant at Hamilton.

Now, what has been said might lead the ordinary reader to conclude that the whole matter is a simple one, and given the necessary preliminary conditions, it is comparatively so; but like any other work the success will depend upon intelligent, systematic and continuous attention to details. For instance, at the sewage farm at Berlin, neither of two necessary conditions has, up to the present time, existed. First, the soil utilized for the sewage farm is a calcareous clay, although the location of the farm is such that all the sewage can be carried there by gravity; and, second, it can scarcely be said to have been managed at all, the farm having for ten years passed from the supervision of one chairman of committee to another, with the result that one usually managed to undo much that his predecessor had learned to do from experience. No records have been systematically kept, and no intelligent history of the farm is obtainable; and yet much has been learned of what ought not to be done, and something of what must be done.

On the other hand, at the London Asylum there has been the same management under the superintendent, a gentleman of the highest intelligence and of unusual executive ability, with a farm foreman, the same for twelve years. As a result the sewage farm, irrigated by the sewage from a population or village of 1,200, produced in 1900 a gross revenue of nearly $2,000, the amount of land used being about six acres. It is probable that nowhere in the world can be found results greatly superior.

With these two illustrations it might be thought that everything depends on soil and management. These are undoubtedly large factors; but in practice it is found that the problem is by no means as simple as this. For instance, taking the town of Berlin as an example, it is found that the contents of the sewage of manufacturing towns vary notably from that of house sewage alone.

In that case tarry products from the gas works escape into the sewers with their germicidal qualities, the lime and tannin, and the arsenic, etc., used as preservatives from tanneries being also

allowed to go directly to the sewers; the sulphur compounds from the rubber works being further added to these other constituents, while the dyes from several kinds of manufactories complete the germicidal materials which go to the septic tanks.

In other towns, as for instance, Worcester, Mass., the sewage at certain hours is so distinctly acid that a trained attendant is required to add from time to time such amounts of alkalies as are necessary to neutralize the acid sewage.

Clearly, then, the question of sewage disposal is one requiring (*a*) a thorough practical knowledge of the engineering, geological and agricultural conditions likely to be most suitable to any given conditions; (*b*) an equally intelligent knowledge of the chemical and biological conditions necessary to keep the sewage in any given case in a condition most favorable for a rapid and natural decomposition by biological processes: and (*c*) a consecutiveness of thought and purpose in the oversight and management, so that the trained operator will learn thoroughly at least one particular plant, so that economy in management with a maximum of good results may legitimately be expected.

The people of a municipality, however, who by law are required to adopt such means as will prevent the pollution of the adjacent stream by their sewage, may very naturally ask: How are they to be expected to be equal to such things? The answer of the law is, that the means of abatement must be found by the person who creates the nuisance. It might further be said, that a town should not erect industries, until they know that they can prevent them from becoming nuisances.

All these answers might equally be given with regard to methods for dealing with contagious diseases, and perhaps with more reason since there are some 2,500 trained physicians in the Province supposed to know all about how to deal with smallpox and other diseases. But as a matter of fact the Government, through this Board, gives constant and great service to municipalities through its officers and laboratory, and there can surely be no logical reason why, if it can be found practicable, in the more difficult and complex biological and chemical problem we are considering, some assistance should not be given, both to improve works already established, and to advise in the operation of new works, which, with our rapidly-growing industries, must from year to year be instituted.

The coming year is likely to see the work taken up in three or four cities, smaller towns will be introducing sewerage, and your committee feels that a great step forward in the Board's work would be gained if the Board were placed in a position, first to gain for itself all the available knowledge as to the methods being adopted elsewhere in working out these problems to a successful issue, and thereafter to give our cities the benefit of our knowledge.

PUS IN THE KIDNEYS: ITS PATHOLOGICAL BASIS AND ITS TREATMENT.

BY THOMAS H. MANLEY, M.D., NEW YORK.

We discover renal suppuration succeeding from essentially two causes, from trauma and from systemic conditions.

Trauma.—The most frequent mechanical influence is calculous obstinction, or hydrostatic pressure, from impediment in the ureter. Various forms of violence may likewise lead to abeyance in function, and hence *preparation of the soil* for microbic invasion.

Among pathological conditions, "King Con," that bane of the human race, that "red-coated mike" of Father Koch, holds its own against all new comers, and of late years we have come to realize that in the renal tissues the secretory elements are a favorite site for tuberculous invasion. But, besides that, there are pus formations found here, in which the more common bacteria of inflammation are discovered, as the bacterium coli, from the large bowel, etc.

But what of the pus?—Do we know just what the origin of pus is; do we know the pedigree or the ancestry of those round nucleated globules which float in it? And do they possess all the evil propensities we attach to them; does their presence in the kidney substance always gravely menace the machinery of life?

Pus is evidently in inflammatory processes what ashes is in combustion; it is a by-product, sometimes quite inert and sometimes intensely virulent.

The celebrated Carl Heitzman, and several other equally noted pathologists, denied that a pus corpuscle and a phagocyte were identical. A stubborn contest is provoked in the economy by the production of pus, the system usually comes off victoriously, but, at times art must come to her rescue. So-called tubercular pus is of serious omen, because it points to a possible constitutional condition, though of late years we have come to discover that even this infective process is sometimes *entirely local.*

Tubular pus, or Suppuration.—What is designated here as tubular suppuration is that type of purulent formation which is lodged in a tube or in close proximity to a large canal; *e.g.,* the tube of Fallopius—pyosalpinx, the bronchial tube—pulmonary abscess—the intestines, in perityphlitic abscess—the ureter, in renal abscess. Other instances might be cited.

It is a well-recognized law in the pathology of pus-formation,

contiguous with, or occupying a viscus, that it quite invariably tends to "point" or break away for itself, into the nearest excretory duct.

After days and nights of agonizing distress, with rasping cough and hurried respiration, the trachea is suddenly flooded with a bursting pulmonary abscess. Pus will sometimes make its way out from a subphrenic abscess through the stomach, the colon, or even up through the bronchi. A German writer has recently stated that all, or nearly all, cases of gonorrheal pyosalpinx will open up a channel for themselves, and drain off completely through the uterus, if we leave them alone, and treat the patient meanwhile. And what chagrin must we endure, in many a case of encysted appendicitis? We may find a fluctuating mass, deeply lodged, as big as a fist, and as tender as a boil; the patient is in great pain, and prepared to submit to anything for relief.

We prepare for operation for the following day, but when we reach his home, we find our patient has had a massive alvine discharge, and with it a great quantity of pus. Our patient *now* declares himself quite as well as ever, save for some bodily weakness.

Renal abscess, pyelonephrosis pyonephrosis, or pyelitis.—Now, what the writer wishes to emphasize is, that a broad knowledge of the forces of nature is as important, or even more important, than art or skill, in the practice of medicine; hence, with pus in the kidney from any cause, regardless of the mode of infection, whether it be from above or below, hematogenous or otherwise, or what may be its specific character, it may be well for one to know that we may often dispose of it in a safer and simpler manner, than by the deep incision.

Nay, the writer's experience is, that there is no type of visceral suppuration more docile to local and constitutional treatment.

Renal pus is disposed of in three ways.—(1) By ureteral drainage—the most common. Several times have we seen enormous renal pus tumors quite disappear after a large evacuation of the detritus of suppuration, by the bladder. In two of these cases the bacilli of tuberculosis were present. All of these patients except two came through, and fully recovered without relapse. In one of these—a tubercular case—the ureter was as thick as the thumb and completely obliterated. In the other, a diagnosis of pyosalpinx had been made, as the pus-distended kidney had sunk deeply into the pelvis, and the most agonizing cystitis existed.

(2) By evacuation—by aspiration, or by incision—nephrectomy. It is true that the former mode is rather ill-timed and incomplete, but it is less perilous than a free dissection, and may effectively relieve symptoms, about all we can hope for in those of broken-down constitutions.

Incision into the cortex, the free opening into all the loculi, and ample drainage, at once arrests further suppuration; but it is usually followed by a troublesome sinus.

Renal ablation.—Nephrectomy is one of the most formidable operations in surgery.

It is resorted to when only a shell of the cortical substance remains. The kidney is now little less than a foreign body; but usually when this stage is reached the patient is so reduced as to bear any sanguinous procedure very badly, hence why the mortality is so large, after decortication and evulsion of the adherent hollow shell.

Sex and Side of the Body.—It is somewhat remarkable to note the far greater frequency of surgical affections of the kidney in the female; suppurative lesions are no exception. In the greater number of these lesions, too, they occupy the right kidney. There appears no essential physiological or anatomical reason for these singular phenomena.

AN APPRECIATION OF PRYOR'S METHOD OF REMOVING THE FIBROID UTERUS BY THE ABDOMEN.

BY LAPTHORN SMITH, B.A., M.D., M.R.C.S.(ENG.),

Fellow of the American and British Gynecological Societies ; Professor of Clinical Gynecology in Bishop's University ; Gynecologist to the Montreal Dispensary ; Consulting Gynecologist to the Women's Hospital ; Surgeon-in-Chief of the Samaritan Free Hospital for Women ; Surgeon to the Western Hospital, Montreal, Can.

(Author's Abstract.)

Twenty years ago he was strongly opposed to operative treatment of fibroids on account of the high mortality then prevailing among the best operators. Ten years ago he became a strong advocate of Apostoli's method of treatment by electricity by which he has cured the hemorrhage permanently in sixty-three out of one hundred and two cases in ten years. Eight years ago Price lowered the mortality enough to induce him to operate in certain cases with the serre-nœud. Baer further reduced the mortality, and he adopted his method and operated oftener. Three years ago Pryor perfected an ideal method which had almost no mortality, and which he (Lapthorn Smith) had adopted, and to which he gave the preference over all other treatment in every case of fibroid suffering enough to consult him. He claimed that he had acted consistently throughout, being guided by the one test question: "What is the mortality?" In his last ten successive cases, seven last and three this year, all had recovered.* Therefore the operation is now almost devoid of danger, while it is absolutely effective. Pryor's method is by far the best, and to it was due, he believes, his absence of mortality in these ten cases. The great advantage of Pryor's method is that we begin on the easy side, and after securely tying the ovarian, round ligament and uterine arteries, and separating the bladder, we cut across the cervix and roll the tumor out, thus obtaining plenty of room to tie the arteries from below upwards. Another great advantage of this method is that there is much less danger of injuring the ureters. This accident is most likely to happen on the most difficult side, that is, the side where the tumor fills all the space between the uterus and the wall of the pelvis. But it is precisely on this side that the tumor is dragged away from the ureter while it is being rolled out, and by the time that it becomes necessary to cut anything on that side, the ureter is at least two inches away and quite out of danger. But Doyen's method has this advantage on both sides, because he pulls

*Since this paper was written the author has had four more cases, making fourteen successive successful operations in two years.

the tumor off the bladder and ureters and from the first he is getting farther and farther away from the bladder and ureters. But Doyen's method has the great objection of opening the vagina and thereby increasing the time of anesthesia, loss of blood, and risk of infection, besides the æsthetic one of shortening the vagina. Dr. Lapthorn Smith lays even greater stress than Pryor does upon the importance of feeling for each individual artery and tying it before cutting it, and then putting a second ligature on it, as the first one may loosen after the tension of the tumor has been removed. He also strongly advises chromicised catgut prepared by the operator himself, which lasts ten days, or else red cross cumol catgut, prepared by Johnston of New Brunswick, N.J., which he has found reliable. Besides the six principal arteries there are two small arteries, which require tying on each side of the cervix. There is no need of disinfecting the stump beyond wiping away the little plug of mucus; but the cervix should be hollowed out so as to make an anterior and posterior flap, which are securely brought together before sewing up the peritoneum. The omentum if long enough should be brought down to meet this line of suture, thereby preventing the intestines from sticking to it or to the abdominal incision. The author is opposed to leaving the ovaries and tubes, although he admits that in young women by so doing it diminishes the discomforts of the premature menopause. But in the majority of cases the appendages are diseased, and we run the risk of the whole success of the operation being marred by leaving the organs which sooner or later will cause more symptoms than did the fibroid itself. His experience of leaving in ovaries or parts of ovaries has been most unfortunate, having received no thanks for his conscientious endeavors, but a great deal of blame for having failed to cure the pain which in the patient's estimation was more important than the tumor.

He was also opposed to myomectomy; the operation was quite as dangerous as hysterectomy; there was very seldom any reason for it, most of the women who have fibroids being either unmarried or at an age too advanced to raise children to advantage, or having passed the child-bearing age altogether. After submitting to such a serious operation, the patient has the right to be guaranteed against a second or a third one of the same disease. So many women have been disappointed by these incomplete or so-called conservative operations that their friends who really could be cured by an operation hesitate to undergo it. He would make an exception, of course, in case of there being apparently only a single polypus, no matter how large, or a single pediculated subperitoneal tumor.

He held the opinion that all fibroid uteri should be removed as soon as discovered, because the woman with a fibroid is liable not

only to the hemorrhage, which may not be great, but to the reflex disturbances of digestion and circulation. Besides, every day it grows its removal is becoming more dangerous and the chances of its becoming malignant are greater.

He was opposed to a preliminary curetting, because it was unnecessary, and secondly, because when done it was seldom done effectually; having examined fibroid uteri immediately after removal, which had been curetted just before, he had found only about a twentieth part of the uterine mucosa removed.

He was strongly opposed to morcellement, which is not to be compared with Pryor's method. It is more dangerous, much more difficult, and keeps the patient a much longer time under the anesthetic. The operation is carried on in the dark, and the ureters are frequently wounded, while complications such as adhesions of the vermiform appendix and tears of the intestine, which are easily dealt with by the abdomen and the patient in the Trendelenburg posture, are almost impossible to manage when working from the vagina. Moreover, nearly all women with fibroids are nulliparous, and the vagina is consequently narrow; they are nearly all elderly, and the passage is consequently inextensible. No more unsuitable class of patients could therefore be chosen for this most difficult vaginal work. The author strongly advises the closure of the abdomen with through-and-through silk-worm gut sutures, left for three or, better still, four weeks. If not tied too tightly, and if dressed with boracic acid in abundance, the one dressing, or at most two, will suffice from the beginning of the case. Besides, they can be passed very quickly, and thus ten minutes in the duration of the anesthesia can be saved.

SUCCESSFUL TREATMENT OF RHEUMATISM AND RENAL CALCULI.

BY W. A. YOUNG, M.D. (TOR.), L.R.C.P. (LOND.).

THE remedy which has given me the best and most rapid results in renal calculi, gout, chronic rheumatism, etc., is Buffalo lithia water. It is an alkaline water from springs of the same name in Mecklenburg County, Virginia. It contains lithia and other salines, more especially potass. bicarbonate, held in perfect solution. It produces results promptly, and experience shows that it does not nauseate, and can be partaken of as freely as desired without any stomachic disorder, as sometimes follows the use of other waters. I find that it has a decided solvent action on uric acid, and in that way relieves the suffering sometimes so severe in gout and allied cases.

In a case of Bright's disease, about one and a half months ago, the urine was loaded with albumen and the microscope field almost covered with casts. Three weeks after commencing Buffalo lithia water the albumen was reduced over one-half, and four weeks later had practically disappeared. In a case of gout, where a gentleman of sixty-one years of age suffered from an acute manifestation every few months, each time to be laid up two weeks or more, Buffalo lithia water undoubtedly cured him, and it is now seven months since he has had any trouble of any kind. In one instance where the urine was what might be termed semi-solid, from phosphatic sediment, after ten days' free use of Buffalo lithia water the urine cleared up, with scarcely any deposit in the chamber after standing some hours.

In another case, J. M., aged 38, gave a history of having for three and a half years been almost a constant sufferer from rheumatism, with enlargement in the right knee and left ankle joints. He had tried the usual routine remedies—arsenic in the shape of Fowler's solution, cod-liver oil, and ichthyol, used both externally and internally, and applied the neurotone every night, which, at the time, seemed to give some relief, but only temporary. He had also used a mixture of iron, arsenic and iodide, but the effects were practically nil. I prescribed Buffalo lithia water, to be taken *ad libitum*. In six days he was able to sit up for an hour or two in a rocking chair, and at the end of two weeks had greater ease than in nearly six months. He had much less stiffness in the joints, and, instead of complaining of his shoulders being sore when putting his dressing gown on, he said that his muscles were getting less painful, and spoke quite encouragingly.

He left the hospital in three weeks from the time he went in. The Buffalo lithia water he took regularly and freely. I examined his urine and found it was faintly acid, specific gravity 1020, color light amber.

Recently I have had under my supervision a case of renal colic. M. S., aged 26, gave me a history of "kidney colic," as she termed her ailment. She said she had been a sufferer for nearly four years, and that when the "spasm" came on she was entirely useless and feared she would have to give up her "place." She was a domestic servant, and said to me that the attacks were coming on two or three times a month, instead, as they used to, about once every four or six weeks. She had taken four times a day a prescription of wine of colchicum, pot. bicarb., ferri et potass. tart., potass. iodide and lith. carb. for six weeks. Later she had used lithia benzoate and extract gentian in pill, but not long after the spasms returned and seemed almost worse than ever. I then ordered Buffalo lithia water for her, and told her to drink freely of it. She took it for a month, and at the end of that time I examined the urine. I found its density lower, and the number of attacks for the four weeks was only two. I then increased the quantity of the Buffalo lithia water taken daily. At the end of the second month this girl had had only one attack, and it lasted but one and a half hours, with no hematuria as a result. She said she felt better than she had for years, and that headaches, which had become so distressing, were a thing almost of the past. I asked her as to the distress across the back, and she said it was better, though still present. I had her let some urine stand over night in the chamber, and the pink deposit was hardly perceptible in the morning, with no mark around the edge as before. During the next or third month she had no attacks at all, and I then lost sight of her, as she went to another city to take up work there. She reported to me six weeks later that she was splendid, and had had no return at all of her trouble, adding in a P.S. that she was still taking the Buffalo lithia water, and would continue to do so, as I had directed, for twelve months.

The composition of Buffalo lithia water is very largely that of the serum of the blood, thus being excellently fitted for ready absorption, becoming part and parcel of the general flow, which doubtless explains its great superiority and general success in cases where tablets and other remedies had failed.

Selected Articles.

X-RAY TUBES.*

BY EMIL H. GRUBBE, B.S., M.D.,

Professor of Electro-Physics, Radiography and X-Ray Diagnosis, Illinois School of Electro-Therapeutics; Lecturer on Electro-Therapeutics Hah. Medical College and Hospital; Chief Radiographer Illinois X-Ray and Electro-Therapeutic Laboratory; Member of Roentgen Society of the United States, also Electro-Medical Society of Chicago, etc.

THE constant investigations of the past year with the Roentgen phenomena have developed immense improvements in X-ray apparatus. But great as has been our progress as regards apparatus and methods, comparatively slow progress seems to have been made in developing that most important part of an X-ray outfit, the Crooke's vacuum tube.

I wish in this paper to give a short review of the principles applied in the construction of tubes, and incidentally to throw out a few ideas pertaining to the methods involved and the kind of tube necessary in order that we may get good, powerful X-rays. By powerful X-rays I mean X-rays which have great penetrating power. This standard, I believe, as far as we know, is the only one which gives us any conception of the variability of X-rays.

From the great variety of tubes now upon the market we must conclude that many attempts have been made to improve the Crooke's tube. At present the so-called standard tubes are made upon a general plan which consists of a vacuum bulb of thin glass, having two tapering ends, from one of which enters a highly-polished concave aluminum disc called the cathode, and from the other projects, almost to the centre of the tube, and usually from three to four inches from the aluminum disc, a thin sheet of platinum called the anode inclined at an angle. From this sheet of platinum X-rays are sent out of the tube.

In order that I may not be misunderstood later on, I wish now to make a general statement including my opinion of X-ray excitation and partially its origin.

The X-ray is the result, primarily, of electrified particles of gaseous matter propelled or pushed by high voltage from the cathode disc of a vacuum tube, directly opposite—this manifestation has been called the cathode ray. When cathode rays are stopped in their terrific speed through the bulb of a tube by the

* Paper read before the Chicago Electro-Medical Society.

interposition of a very dense body, as for instance, platinum, a transformation occurs, resulting in a peculiar manifestation which we recognize as X-rays. The X-rays, then, are the result of the reflection or convergence of electrical discharges from the concave aluminum disc to the platinum sheet which is placed in a direct path. Now, when the currents discharged into a vacuum tube are heavy or long continued, the platinum sheet becomes red or white hot, indicating the transformation of these cathodic electric waves into heat waves. We know that in the ordinary X-ray tube the vacuum is never a constant, but always varies, and this variability increases as we use the tube. The cathode rays depend for their generation upon a certain degree of vacuum, and if this vacuum is constantly varying, of course the cathode rays vary in quantity and quality, and consequently the resulting X-rays vary accordingly.

It behooves us then, in order that we may have a constant X-ray value, to provide tubes which will keep as near as possible a stationary vacuum, and which, in addition, will at all times be under perfect control of the operator. The all-desirable qualities which a tube should have depend largely upon the purpose or use to which we expect to make the tube. I believe it is impossible to construct a tube which will be ideal for all varieties of exciters, and also for all varieties of uses, viz.: Radiographic, Fluoroscopic and Radio-Therapeutic.

To-day the best type of tube for radiographic work is, no doubt, the so-called "focus tube." A focus tube has its internal electrodes so shaped and placed that the cathode rays emanating from the negative concave disc will be collected and concentrated upon the positive platinum sheet at a very small area or spot.

When a tube is of such vacuum that it just begins to permit the production of X-rays we say we have a low vacuum or soft tube. By the aid of a fluoroscope we can always determine relatively the vacuum of a tube. In general, we may say, that if the hand is placed before the fluoroscope five inches from the tube, and the bone outlines are not clearly distinguishable, we have a low vacuum tube. If now the vacuum is raised, we shall have more and clearer bone outlines, and finally, in using a high vacuum tube, the X-rays pass through the bones so that they appear only faint in outline.

Under ordinary conditions of low or medium vacuum, we can usually make out two separate and distinct hemispheres in the tube bulb, one dark, emitting no fluorescent light, and one luminous, emitting a greenish light; but when we excite a very high vacuum tube, using a very high voltage current, not only does the platinum disc and the luminous hemisphere give off X-rays, but, in fact, the whole tube gives off appreciable rays.

Before making a radiograph a fluoroscopic view should always be made to determine the vacuum of the tube. I believe at present we know of no other method which may be used as a standard. Of course, even as simple as it may seem, it nevertheless is an invariable standard, and therefore a large amount of experience is

necessary to apply it. The method is this: We must bring our vacuum to such a degree that we can generate X-rays powerful enough to penetrate the tissue which we wish to radiograph. If we do not penetrate the tissue, we certainly cannot determine its internal make-up. It is impossible to show the structure of a bone unless you can apply rays powerful enough to penetrate the bone. In this connection I might say that if this method is applied before the plate is exposed, it will be found to materially shorten the time of exposure, and, above all, the proportion of under-exposed and under-developed negatives; in short, useless plates will decrease as we become more and more familiar and adept in the use of the fluoroscopic method. I may also add that the tube must not be too high, as then we lose all detail of structure. Relatively, the nearer a body is brought to the screen, and the farther away from the tube, the more normal the fluoroscopic outline. For instance, to get sharp bone outlines of the chest in fluoroscopic work, the vacuum must not be too high and the fluoroscope must be in direct contact with the body—chest or back.

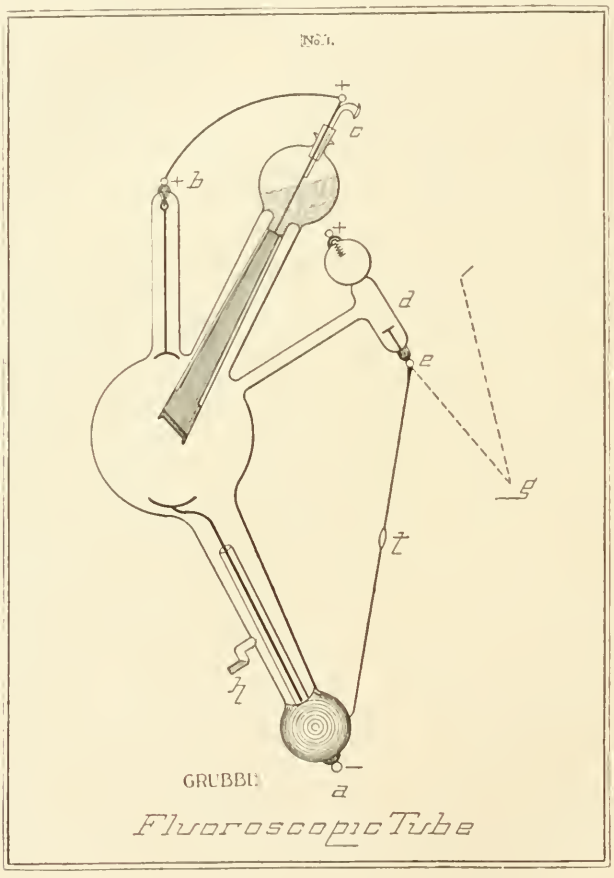
In order to get a normal shadow of the heart it is necessary to place the body a short distance away from the tube (ten to fifteen inches), as otherwise the shadow may be magnified, and at the same time it will not show clear in outline. Here the tube vacuum should be just high enough to give a black outline of the heart; anything higher will blur the shadow and make it irregular.

It is a well-known fact that a tube which may at one time be considered of low or medium vacuum will gradually become raised to a higher and higher vacuum as it is ordinarily used: this is sometimes detrimental. It is also a well-known fact that as the vacuum constantly becomes higher, the voltage necessary to push the current through the tube at first becomes ultimately inadequate because of the inability of the apparatus to furnish the same.

The first drawback is overcome, if deemed necessary, as for instance, in radio-therapeutic work by the use of a tube which has a variable vacuum attachment. The second drawback, that of low voltage current, is overcome by the use of more powerful apparatus, which develops enormous voltage, and is therefore able to overcome the high resistance of the tube due to its high vacuum. In this connection it may be mentioned that it seems out of order to label a tube for a certain voltage, as for instance—40 cm.—50 cm. spark length, when the vacuum, which determines the ability to stand certain voltage, goes up and down —in other words, varies constantly as the tube is used.

Scientific research of any kind can be of really little importance if it does not lead to practical results. The endeavor to improve the X-ray tube has been general, but I believe some very important mechanical and electrical facts have been omitted in the construction of this instrument. First, I find the greatest difficulty in getting a tube which has its external electrodes far enough apart to prevent sparking or short circuiting on the outside.

We know the greatest desideratum in X-ray work is maximum radiance. Up to the present time we have not been able to secure radiance approaching the maximum, because of the inefficiency of the Crooke's tubes. Personally I find, in order that we may use high voltage currents (an absolute necessity to the derivation of maximum or penetrating radiance) that the internal parts of the tube, including the vacuum, are not so much at fault as the exter-

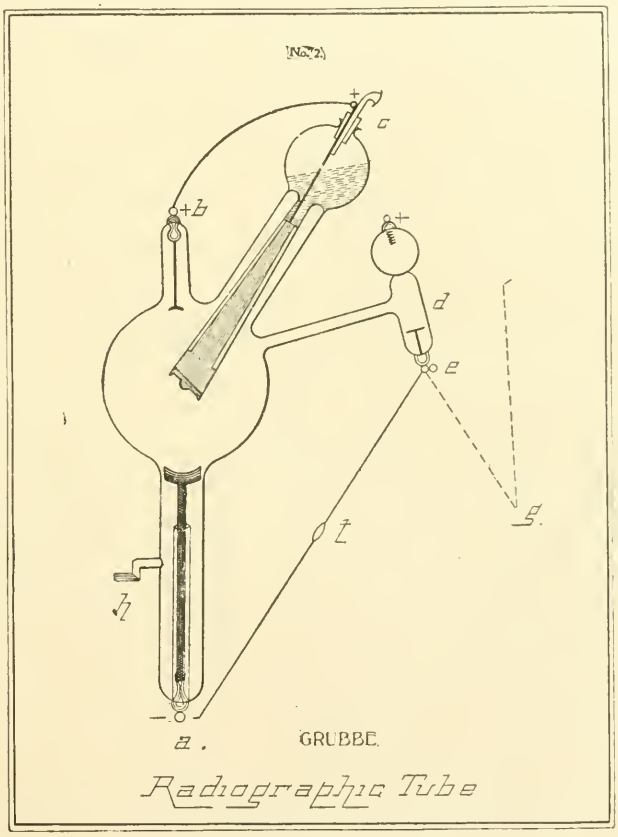


nal parts. We must separate the external electrodes much farther than we have been doing.

The more we study the X-ray the more we find it necessary to have special apparatus to meet certain conditions. For instance, it has been found desirable for Radio-Therapeutic work to operate a coil, which, by the use of from 3-5 amperes of current in the primary, generates a low voltage and high amperage current from the secondary—a short, but thick, spark. On the other hand, to make

Radiographs we need a current of high voltage as well as high amperage. In making this statement I am aware that I am discussing only one-half of the question, as the tube vacuum at which it is worked is, of course, a very important consideration also.

Greatest difficulty is experienced in getting tubes which can dissipate more than a certain limited amount of energy in a certain period of time without danger of breaking or burning out. First, then, in order to get a tube high in vacuum it is necessary



to place the external electrodes far enough apart so that high voltage currents can be utilized without danger of breaking the tube or of the spark passing or jumping around the outside of the bulb. Next, we need tubes so constructed that the anode will readily radiate the heat which is developed whenever large volume currents are used.

Since the ideal has not yet been reached as regards the above two factors, I believe it is in order to mention a few ideas and give a few designs on this subject. In the following considerations I

need not mention specifically the kind of exciting apparatus to which these tubes are specially suited; suffice it to say that the tubes for use on the Static Machine need not be made with as much metal or heat-absorbing materials as is necessary when a coil is the exciting agent.

We will now consider tubes from the fluoroscopic standpoint, ignoring as far as possible the use of the tube from the radiographic or radio-therapeutic standpoint. Good fluoroscopic views of bones are only obtainable from the very highest vacuum tubes, and, indeed, in general it may be said that for fluoroscopic work a much higher vacuum relatively is needed than for Radiography. Steadiness of the illumination or fluorescence is a most desirable function in connection with penetration. The former is brought about by using rapid interruptions, if an induction coil is used (1600-2500 per minute); the latter is developed by the use of a high vacuum and also very high voltage and is independent of the quantity of current. Because of these conditions we are able to get better fluoroscopic views from a large rapidly speeding Static Machine than we can possibly obtain from a coil. Fluorescence is steady and voltage very high.

Since glass is an obstructor to X-rays it is necessary that the bulb through which the rays pass be exceedingly thin, and not only thin, but uniformly thin. In the average tube sold to-day the bulb part of the tube is so thick that I doubt if we get more than 50 per cent. of the actual X-ray value for use on the outside. Another valuable factor to be observed in choosing a good tube for fluoroscopic work is that of the large-sized bulb. A large bulb will stand both higher voltage and amperage for a given vacuum. Also the larger volume of gaseous space tends to keep such a tube more stable as regards its vacuum, and therefore it may be used for a much longer period of time (time being sometimes a very necessary consideration in matters pertaining to diagnosis) without any appreciable change in the vacuum. Finally we can say that the larger the bulb the longer the life of the tube.

From our study of the cathode rays in their relation to X-rays we must come to the conclusion that, generally speaking, the more cathode rays we have in a tube the more X-rays are generated.

I wish to refer to diagram No. 1, which illustrates a special tube and which I shall call the "Fluoroscopic tube," because it is designed specially to show to the best advantage all the factors prominent in an ideal fluoroscopic tube as far as I am able to judge. I recommend a very large bulb, 10 to 14 inches in diameter (if it is possible for high vacuum bulbs of that size composed of glass 1-64 inch in thickness to stand up against atmospheric pressure), because of reasons previously mentioned. The large size of the bulb allows of placing larger electrodes in the tube and therefore we naturally get more X-rays than is possible from a smaller tube having small electrodes.

In an excited Crooke's tube the whole luminous hemisphere

gives off X-rays. For fluoroscopic use a tube should not focus the cathode rays at a point upon the platinum sheet and the anode is best placed so that it strikes the cathode rays before they come to a focus. In this manner the anode becomes uniformly red hot and we get a large quantity of illumination upon the screen, *i.e.*, X-rays spread over a large area. This is especially appreciated when we wish to use a large screen in examining the chest or abdominal cavities. This spreading of the cathode stream may be brought about by placing the anode at an angle of 45 degrees to the path of the cathode rays and within the focal point of these rays. Now, by moving the cathode end of the tube away from the active hemisphere, and placing the aluminum disk within the bulb, we present a glass surface of even thickness, and since the aluminum disk is insignificant as an absorber of X-rays it, of of course, need hardly be considered from the standpoint of resistance. In the usual tube the cathode disk is placed so near the glass that in conjunction with the great heat generated upon its surface a deposit of metallic aluminum soon occurs upon the glass surface in the neighborhood of the cathode disk. Placing the cathode disk within the bulb also does away with the stray X-rays resulting when the cathode stream strikes the sides of the tube immediately surrounding the disk, usually recognized by the formation of a light green ring on the glass surface just above the aluminum disk.

The presence of the metallic ball, preferably made of aluminum, at the cathode electrode on the outside of the tube, is for the purpose of further intensifying the volume of current. In this position its action is that of a condenser. The value of this attachment becomes obvious, because in using very high vacuum tubes we have learned that heaping up current at the cathode gives us more efficient X-rays (internal resistance being thereby lessened); ultimately this is also a means to steady the fluorescence. This condenser is made globular and is to be kept highly polished, in order that current radiation may be insignificant. Condensers of other shape have been found to be impractical because of the extensive radiation usually present during high resistance.

Further consideration of this tube must be left to an examination of the diagram, which I believe is self-explanatory.

Next, let us consider a tube especially designed for Radiographic work. I refer you to diagram No. 2.

This tube, as is indicated, is especially constructed for Radiographic work—that is, it is able to stand up against both high voltage and high amperage currents.

To be able to use currents of large volume as derived when the various types of electrolythic or mercury interrupters are in circuit, it has been found best to cool the heated platinum disk by having continuous flow of water near the anode to absorb the heat generated. By this method we may pass powerful currents through the tube for a few minutes without noticing any material deterioration

of the vacuum. According to the diagram we do away with the continuous water stream and substitute a very large steel jacket, extending almost the full length of the anodal electrode in the bulb of the tube, and in addition to this we fill this metal jacket with a large quantity of heat-absorbing oil (even water may be used). This does away with water bags or bottles and rubber tubing for conveying the water to the tube, a very inconvenient arrangement.

Since it is a well-known fact that if we wish to attain the best definition on a plate exposed to the X-rays we must bring the cathode stream to a very fine focus at the anode, and the smaller the focal area the better the definition. The platinum anode in this tube has a small, but very heavy, projection, upon which the cathode rays are brought to a focus. This tends to confine the heating to a small area and also sends away X-rays sooner than any other part of the disk. In order to still further favor the focussing of the cathode rays the anode should be placed at an angle of from 60-65 degrees to the cathode stream. This arrangement gives sharp or clean and contrasty picture and the exposure can be made very short. We get not only a shadow picture of the gross outlines of parts exposed, especially bones, but also an idea of the inner structure. This we call definition, and it depends primarily upon our ability to place the cathode rays at a small area upon the platinum disk.

The bulb of a radiographic tube need not be as large as for a tube used in fluoroscopic work: indeed, in order to prevent blurring of the picture we wish to avoid all radiation except that originating at the focal point of the anode. A small tube gives off few stray rays, there is very little spreading, and consequently such a tube is desirable for producing pelvic and chest pictures. It is well established that the more we increase the amperage of the current applied to a Crooke's tube, provided the voltage is high enough to overcome the resistance, the more X-rays we get. No doubt the degree of fluorescence determines largely the photographic power of the tube, but if it is possible to measure the quantity of current passing through the tube at any period of time we are always in position to know accurately the radiographic effect of a tube. It may be stated that the higher our amperage for a given vacuum the more rapid our ability to make radiographs. It is the large quantity current which causes chemical changes upon the photographic plate.

A properly constructed X-ray tube to give clear definition and prevent diffusion to any great extent must have its cathode disk so placed and shaped (very concave) that cathode rays coming from this disk do not strike anything before reaching the anode. This cathode disk, in order that it may stand the large quantity of heat developed upon its surface should also be large in ear, as shown in the diagram, so that heat radiation may be good. Finally in order that we may use high voltage currents and thereby get

penetrating X-rays, all the electrode containing parts of the tube are placed far apart—about twice the distance which is observed in the common tube.

In conclusion, let me say that no apologies are offered for anything presented in this paper, because I believe it is only through digestion of speculative ideas that we can hope to proceed in our investigations of so wonderful and powerful a force as the X-ray has proven itself to be.—*American Electro-Therapeutic and X-ray Era.*

Indecent Medical Advertising in Daily Press.—There is such a general subversion of the ethical to the commercial by the editors of the newspapers of this country, that the action taken by Mr. Frank A. Munsey, who recently purchased and reorganized the *Washington Times,* is worthy of special commendation, and sets an example for good which it is much to be hoped may not be unheeded by other editors. In an announcement to the public, Mr. Munsey says: "There is another way of keeping a paper alive when it is not on sound business lines, and that is by running a lot of disreputable and shameful advertising—advertising that ought to put to shame any self-respecting publisher. I refer to a class of co-called medical advertisements that are carried by most of the newspapers of the country—even the respectable papers—but which advertisements are indecent and vile, and which the Post-office department should compel publishers, regardless of their avarice, to drop." Mr. Munsey has, therefore, eliminated all advertising matter of this sort from his paper. This action has, undoubtedly, resulted in considerable financial loss, as the *Times* was formerly a conspicuous sinner in respect to the publication of advertising matter of a disreputable character, and it is much to be hoped that this loss may be more than offset by an increased circulation among the decent and cleanly-minded of the community. There is no doubt that suggestive "medical" advertisements of aphrodisiacs, specifics for venereal diseases, preventives of such diseases and of conception, "female regulators," offers of professional services to "ladies in trouble," and the rest of the class, form one of the greatest menaces to public health and morals. They directly incite to vice by promising immunity from its consequences, which they thrust before the notice of the young and innocent. As suggested above, the whole problem is one that should receive the attention of the Post-office authorities, who have it in their power to prevent this insidious debauchery of the public morals. The forcing out of advertisements of this sort from the public prints is one of the first tasks to which a politically-united profession should set itself.—*Medical Record.*

THE DOCTOR'S OFFICE LITERATURE.

Have you seen that quaint collection of the things of other days,
Which in any doctor's office meets the weary patient's gaze ;
Which consists of battered numbers of three-year-old magazines,
And some illustrated papers full of long-past battle scenes ?
Have you seen those hoary relics of the antiquated past,
Which with "trophies", and "mementos" could be very fitly classed ?
If you haven't, make a journey up to that abode of gloom
Which is known to fame and patients as the doctor's waiting-room.

There they lie, upon the table, and you look them o'er and o'er,
Searching vainly for some story that you haven't read before.
For the chairs are full of people, and you've simply time to burn,
Ere a welcome voice announces that at last has come your turn.
There's a *Puck* of last year's vintage and a *Life* of '98,
And a *Munsey* and a *Scribner's* of a yet more antique date,
And a *Harper* illustrating Admiral Montojo's doom—
All are in that weird collection in the doctor's waiting-room.

Through the pile you run your fingers, for you've nothing else to do,
And at last down near the bottom you discover something new !
Eagerly you pounce upon it, till disgustedly you see
That it's some prosaic treatise on applied pathology,
And if chance some other new one shall reward your wild pursuit,
You'll discover it's a record of the "Bilious Institute."
You can dig there for an hour, but whatever you exhume
Will be just the same old rubbish in the doctor's waiting-room.

In a barber shop symposium of literature you'll get
At least a this month's *Standard* or a late *Police Gazette* ;
And, although you'll find their contents are perhaps a little bold,
They will have the signal merit of not being ten years old.
In a bootblack stand the moments you'll be helped to while away
With an illustrated paper of the mint of yesterday.
But like faint and shadowy faces from the past's unyielding tomb
Are the newest publications in the doctor's waiting-room.

Where they get them—what collector of remote antiquities
Piled upon those shaky tables such fantastic shades as these—
Is a question never answered, for the doctors do not know
How they gathered those remembrances of days of long ago.
But it seems to be quite certain that they'd stock a few small shelves
With recent works if they were forced to read those things themselves.
But they're not, and so their patients must their weary minds illume
With the faded, frenzied fiction in the doctor's waiting-room.

—J. J. Montague, *in Portland Oregonian*

The Canadian Journal of Medicine and Surgery

J. J. CASSIDY, M.D.,
EDITOR,
69 BLOOR STREET EAST, TORONTO.

Surgery—BRUCE L. RIORDAN, M.D., C.M., McGill University; M.D. University of Toronto; Surgeon Toronto General Hospital; Surgeon Grand Trunk R.R.; Consulting Surgeon Toronto Home for Incurables; Pension Examiner United States Government; and F. N. G. STARR, M.B., Toronto, Associate Professor of Clinical Surgery, Lecturer and Demonstrator in Anatomy, Toronto University; Surgeon to the Out-Door Department Toronto General Hospital and Hospital for Sick Children.

Clinical Surgery—ALEX. PRIMROSE, M.B., C.M. Edinburgh University; Professor of Anatomy and Director of the Anatomical Department, Toronto University; Associate Professor of Clinical Surgery, Toronto University; Secretary Medical Faculty, Toronto University.

Orthopedic Surgery—B. E. MCKENZIE, B.A., M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Surgeon to the Out-Patient Department, Toronto General Hospital; Assistant Professor of Clinical Surgery, Ontario Medical College for Women; Member of the American Orthopedic Association; and H. P. H. GALLOWAY, M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Orthopedic Surgeon, Toronto Western Hospital; Member of the American Orthopedic Association.

Oral Surgery—E. H. ADAMS, M.D., D.D.S., Toronto.

Surgical Pathology—T. H. MANLEY, M.D., New York, Visiting Surgeon to Harlem Hospital, Professor of Surgery, New York School of Clinical Medicine, New York, etc., etc.

Gynecology and Obstetrics—GEO. T. MCKEOUGH, M.D., M.R.C.S. Eng., Chatham, Ont.; and J. H. LOWE, M.D., Newmarket, Ont.

Medical Jurisprudence and Toxicology—ARTHUR JUKES JOHNSON, M.B., M.R.C.S. Eng.; Coroner County of York; Surgeon Toronto Railway Co., Toronto; W. A. YOUNG, M.D., L.R.C.P. Lond.; Coroner County of York, Toronto.

W. A. YOUNG, M.D., L.R.C.P. LOND.,
GENERAL MANAGER,
145 COLLEGE STREET, TORONTO.

Pharmacology and Therapeutics—A. J. HARRINGTON M.D., M.R.C.S. Eng., Toronto.

Medicine—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon, Toronto General Hospital; and W. J. WILSON, M.D., Toronto, Physician Toronto Western Hospital.

Clinical Medicine—ALEXANDER MCPHEDRAN, M.D., Professor of Medicine and Clinical Medicine Toronto University; Physician Toronto General Hospital, St. Michael's Hospital, and Victoria Hospital for Sick Children.

Mental Diseases—EZRA H. STAFFORD, M.D., Toronto, Resident Physician Toronto Asylum for the Insane.

Public Health and Hygiene—J. J. CASSIDY, M.D., Toronto Member Ontario Provincial Board of Health; Consulting Surgeon Toronto General Hospital; and E. H. ADAMS, M.D., Toronto.

Physiology—A. B. EADIE, M.D., Toronto, Professor of Physiology Woman's Medical College, Toronto.

Pediatrics—AUGUSTA STOWE GULLEN, M.D., Toronto, Professor of Diseases of Children Woman's Medical College, Toronto.

Pathology—W. H. PEPLER, M.D., C.M., Trinity University; Pathologist Hospital for Sick Children, Toronto; Demonstrator of Pathology Trinity Medical College; Physician to Outdoor Department Toronto General Hospital; Surgeon Canadian Pacific R.R., Toronto; and J. J. MACKENZIE, B.A., M.B., Professor of Pathology and Bacteriology, Toronto University Medical Faculty.

Ophthalmology and Otology—J. M. MACCALLUM, M.D., Toronto, Assistant Physician Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

Laryngology and Rhinology—J. D THORBURN, M.D., Toronto, Laryngologist and Rhinologist, Toronto General Hospital.

Address all Communications, Correspondence, Books, Matter Regarding Advertising, and make all Cheques, Drafts and Post-office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College St., Toronto, Canada.

Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the fifteenth of the month previous to publication.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month.

VOL. XI. TORONTO, APRIL, 1902. NO. 4.

Editorials.

IODINE AND THYROID-THERAPY IN GOITRE AND THYROID-THERAPY IN INSANITY.

ACCORDING to Kocher, iodine and thyroid extract are equally successful in the cure of goitre, and the same kinds of cases of goitre are amenable to either form of treatment. In the cystic and fibrous forms of goitre, iodide of potassium has no effect, and in the vascular form it is often injurious. It should be employed only in cases of simple hypertrophy of the thyroid gland; similar

data are, for the most part, applicable to the treatment of goitre by thyroid extract.

It may be said that iodine and iodide of potassium always act much more slowly and often less completely than thyroid extract in the cure of goitre. In explanation of this circumstance it is contended that the iodine present in the thyroid body is more active because it exists in a special organic combination. Why a combination of iodine with an albuminoid should render the iodine more active as a therapeutic agent is not clear, though it may be because the chemical element in the combination is thereby made more assimilable, in the same way that the potassium contained in potatoes is said to be more easily assimilated than plain citrate of potassium.

Prof. C. A. Ewald thinks that it is a question as to whether the whole gland, in its various forms of administration, *i.e.*, fresh, dried, or extracted, is to be preferred before its manifold derivatives, such as iodothyrin, thyroidin, thyroprotein, thyroglandulen, and thyrocolloidin.

Baumann and Roos, however, do not admit of a doubt; but claim that with their chemically isolated iodothyrin, more certain effects can be obtained in goitre than from the ingestion of the whole gland, because when the whole gland is used, the separation of iodothyrin from its accompanying albuminoids in the intestines of the patient requires a process of fermentation or putrefaction, which changes a portion of the iodothyrin into inactive products.

Some time after the introduction of iodine and its derivatives into therapeutics, untoward results were traced to their employment, *i.e.*, emaciation, loss of strength, trembling of the limbs, palpitation of the heart, tachycardia, breathlessness, perspiration, insomnia, and extreme nervous excitability. Rilliet, in 1860, named this assemblage of symptoms "constitutional iodism." Later on, it was remarked that these untoward symptoms only appeared in goitrous patients.

In a paper read before the Swiss Medical Association, April, 1899, Dr. Jaunin insisted on the identity of the symptoms of constitutional iodism and those of experimental or therapeutic thyroidism. Besides, he mentioned cases of Graves' disease, which began after the use of iodine or iodides. Hence he concluded that, in predisposed persons, who had goitre in a visible or latent form, iodine causes a special derangement of the function of the thyroid

gland, and that such derangement is the cause of the untoward effects which have been observed. According to his view, the constitutional iodism of Rilliet should be called iodothyroidism.

Similar views were expressed by Dr. Gautier, in an article published in *Revue Medicale de la Suisse romande,* Oct. 20, 1899. He thinks that a patient with a visible goitre, as well as one who has it in a latent form, may suffer from the untoward effects of thyroidism after small doses of iodine or iodides. These drugs occasion, according to his view, the autophagy of the goitre by the goitre itself, the thyroid tumor often continuing to diminish in size after the cure of the goitre is complete. The thyroid cachexia would, according to this view, even be susceptible of causing insanity in hereditarily predisposed persons. A simple prolonged sojourn at the seaside causes in the Genevese, who are all more or less predisposed to goitre, some of the untoward results of thyroidism, *i.e.,* insomnia, nervous excitement, emaciation, and Dr. Gautier attributes this assemblage of symptoms to the bringing into action of auto-intoxication by iodine. The iodine disturbs the nerve function of the thyroid gland, and when the chemistry of this gland is upset, it may continue to pour toxic substances into the circulation.

On the other hand, Dr. Adami, Montreal, in an article published in Sajous' "Annual and Analytical Cyclopedia of Practical Medicine," quotes leading authorities, who have used iodine and thyroid-therapy in goitre with uniform success and few accidents. Thus, according to Koenig, iodine is more especially of use in the hypertrophic and follicular forms, not so much in the colloid; especially in recently developed goitre is it useful. It may be employed either externally over the goitre, or in the form of potassium iodide, given in large doses by the mouth. Where cysts are present iodine is useless, and surgical means must be employed. Should symptoms of iodism supervene, Koenig points out that we may not be truly dealing with iodism, but with symptoms of cardiac stimulation and rapid emaciation, due to the rapid reabsorption of the colloid material into the gland.

Referring to treatment of goitre by thyroid-therapy, Dr. Adami says: "On the whole, therefore, the employment of fresh sheep's gland would seem to give the best results, more especially in young persons and those suffering from the softer parenchymatous forms of the disease, whether diffuse or nodular." It is further to be noted that only in early cases does it appear to result in complete

cure, and where cysts are present these are in no wise reduced in size, although through the shrinking of the surrounding tissue, they may become more easily enucleated.

Bruns (*American Journal Medical Science,* May, 1895) quoted in Dr. Adami's article, says: "Results of treatment of sixty cases of goitre with thyroid: Cases of benign parenchymatous goitre were put under treatment without any selection. Cystic cases, and those of malignant disease, were excluded, as were also cases of exophthalmic goitre. Instead of raw thyroid, tabloids were used in the dose of two daily to adults, one to children. Unpleasant symptoms, such as palpitation of the heart, nausea, diarrhea, tremor, headache, etc., were treated by *temporary withdrawal of the remedy.* The duration of the treatment was from three to four weeks on the average. In young children, complete recovery was the rule. In older children, marked diminution in the size of the goitre was observed, with cessation of the symptoms. In adults recovery was rare, and less common in proportion to age. Complete return of the thyroid to the normal size is not to be expected later than the twentieth year. Mild relapses were seen only three times, and each case was rapidly relieved by renewal of treatment."

O. Angerer (*Muenchener med. Woch.*, Jan. 28, 1896) says: "Of the 78 cases of goitre treated with raw sheep's gland, only 4 or 5 remained uninfluenced. A few showed such excessive reaction after its use that it had to be discontinued."

Other evidence could be given showing that thyroid-therapy in goitre, if carried out carefully and the effect watched, rarely causes complications. "It has a beneficial influence on the nervous system" (*Wratch,* No. 5, Feb., 1896).

There seems strong reason to believe that goitre, in the follicular and parenchymatous forms, should be treated either with iodine or thyroid-therapy, before the patient has reached the twentieth year. It may well be, that the untoward results observed by Drs. Jaunin and Gautier occurred in adult goitrous patients. In Graves' disease iodine and thyroid-feeding appear to be of no use; indeed, they are injurious unless myxedema should be a feature of the case. Tonics, more particularly iron and strychnine, are apparently the most applicable. With regard to the charge that thyroid-therapy is calculated to produce insanity in predisposed persons, the evidence of Dr. C. C. Easterbrook, of the Morningside Asylum, Edin-

burg, would go to establish the contrary proposition, *i.e.*, that it is curative in the worst forms of insanity. He administered thyroid extract in one hundred and thirty cases of insanity. All the patients (eighty-five females and forty-five males) were suffering from insanity, which at the time was stationary or chronic, or incurable. Of the one hundred and thirty patients so treated, twelve recovered, twenty-nine were improved, and eighty-nine were unimproved. Twelve recoveries out of one hundred and thirty cases is just over 9 per cent. If, however, obviously incurable cases were eliminated, the results gave 12 per cent. of recoveries for all cases of insanity which were intractable by ordinary means. The views of Drs. Jaunin and Gautier are certainly most interesting; but they conflict with the experience of competent practitioners who have obtained uniformly good results in goitre after the medicinal employment of iodine or thyroid-therapy. Dr. Easterbrook's experiments go to show that these agents, instead of being susceptible of causing insanity, are more likely to cure that disorder.

J. J. C.

MIGRATION OF THE POPULATION FROM THE COUNTRY TO THE CITY.

In studying statistics of population in European countries, as given in reports of the last fifty years, and those of some countries on the North American continent, for the last decennial period, an increasing tendency is observable for the various populations of these countries to be hived together in cities, instead of living in the country. Instances of this change of condition may be culled from records of the United Kingdom, Germany, France, the United States and Canada. Thus in 1841, 31 cities in England having a population of 100,000 or over that number, had a united population of 4,500,000. Fifty years later, in 1901, their united population numbered 10,870,000. The population of 26 German cities, now having a population of 100,000, or over that number, in 1835 amounted to 1,400,000; in 1901 it had risen to 6,000,000. In 1836, eleven French cities of 100,000 population, had a united population of 1,700,000; in 1891 their united population had risen to 4,180,000. Taking the large cities of England, Germany and France, and adding together their populations for statistical purposes, we find that in 1840 they had a population of 4,800,000; in 1901 their united population amounted to 23,050,000.

In 1890, the urban population of the United States formed 29.9 per cent. of the whole; in 1900, the proportion was 33.9 per cent. In certain States of the North Atlantic division the tendency of the urban population to increase is very marked. Thus in Massachusetts, the urban population in 1890 was 69.9 per cent. of the whole; in 1900, it was 76 per cent. In New York State in 1890, it was 60 per cent. of the whole; in 1900, 68.5 per cent. In Pennsylvania, in 1890, it was 40.9 per cent. of the whole; in 1900, 45 per cent.

A census bulletin issued February 11th, 1902, gives the rural and urban population for the several provinces of the Dominion of Canada, as compared with that of 1891. The increases in the farming class are: Manitoba, 73,216; North-West Territories, 53,968; British Columbia, 26,880; unorganized territories, 11,140; Quebec, 3,847. The decreases are: Ontario, 48,133; Nova Scotia, 43,212; New Brunswick, 18,527; Prince Edward Island, 6,519. The net increase in rural population amounted to 52,924. The total gain in urban population was 483,503, making a total increase for the whole country of 536,427 souls, as compared with 1891.

We notice, in an article published in *La Presse Medicale*, Jan. 11, 1902, that a similar movement of the population towards the cities has been observed in France, and we shall here avail ourselves of the statistics given in that article. In 1846, the population of France was 35,400,486, of whom 26,753,743 were classed as rural, and 8,646,743 as urban; that is to say, 75 per cent. inhabited the country and 25 per cent. the cities. In 1866, France having annexed Nice and Savoy, had a total population of 38,067,664, of whom 26,471,726 were rural, and 11,595,348 urban; that is to say, about 70 per cent. inhabited the country and 30 per cent. the cities. After the loss of Alsace-Lorraine in 1870, the population of France fell to 36,102,321, of whom 24,868,022 were rural, and 11,234,899 urban; that is to say, 69 per cent. of the population resided in the country, and 31 per cent. in the cities. A quarter of a century later, in 1896, France had a total population of 38,517,975, of whom 61 per cent. were rural and 39 per cent. urban. In 1901 there was not much change; but an increase in the urban population was noticed, since, while there was a total increase of 444,613 inhabitants in France, the cities, during the same quinquennial period,

gained 458,576, the relative proportions being 60.27 per cent. rural and 39.73 per cent. urban. It thus appears that in fifty years the mode of existence of over a third of the population of France has been changed, an increasing percentage becoming urban.

Various reasons are offered to explain this very common movement of population, and the same reasons seem to apply in Canada and America, as well as in the older countries of Europe. The farm laborers have been led to seek work in the cities, on account of the great increase of manufacturing industries in the important centres of population. Besides, the multiplication of labor-saving devices, in the shape of improved agricultural implements has steadily lessened the demand for hand work on the farm, and obliged the laborer to leave his home in the country to seek for employment in the city.

The substitution of cattle and sheep raising on the farms, instead of crops of grain, vegetables and fruits, has also powerfully tended to lessen the demand for farm laborers.

It may be, also, that a system of general primary education has enlarged the horizon of the rustic mind, which is attracted by the facilities for social intercourse, the refinement of manners, and many other advantages enjoyed by those who live in the city. A monotonous life and the lack of amusement in the country may also serve to intensify the apparent advantages of city life.

Probably the influence of the railroad counts for much. A man hoeing turnips in a field notices the smoke of a locomotive sailing over the tree-tops; sees the train dash round a curve and whisk out of sight. He begins to think of the names of the cities that train is going to, cities to which he might go if he were so minded. One of them, most important of all to him, is the city where Parliament meets, where important gatherings of all kinds are held, where the universities and colleges are situated, where the great newspapers are published, where amusements are within easy reach, in fact a powerful magnet to draw him from the fields to the city. The moving train is the disturbing vision, which starts him longing, and then makes it easy for him to gratify his wish. In a subsequent paper, we shall consider some of the effects of the migration of population to the cities, more particularly with regard to the growth and development of tuberculosis. J. J. C.

DR. RODDICK'S BILL.

Dr. T. G. Roddick, on the afternoon of March 13th, in the House of Commons, moved the second reading of his bill to establish a Dominion Medical Council. We are delighted to congratulate our friend the Doctor, who has worked so ardently for some years now in this direction, on the passing of the second reading, and earnestly trust when his bill comes up for final disposition that the Premier will not throw any cold water upon the scheme, but on the other hand assist in every way possible to have the bill made law, and thereby earn the gratitude of practically every physician in Canada. The scheme provides for a council of 39 members, nine from Ontario, Quebec 8, Nova Scotia 4, New Brunswick 3, Prince Edward Island 2, the North-West Territories 3, and 3 Homeopaths.

It is impossible to please everybody, and never was a measure put through by any Government that met with the approval of all. Dr. Roddick's bill has one or two objections, perhaps; but they are minor ones, and surely should be overlooked when its immense advantages are taken into consideration. We think, for instance, that clause 6, subsection *c*, should be amended in order to be perfectly fair to such a body as Trinity Medical College. It refers to the make-up of the proposed Dominion Licensing Board, and speaks of that body being composed of one member from each University of Canada engaged in the teaching of medicine. That should read, we think, "each University or Medical College."

Another kindly criticism we might make is that, as this bill gives the right to a licentiate of the Dominion Council to practise in any British possession, and in the Imperial service, provision should be made so that a graduate licensed in London, we shall say, should be considered qualified to practise not only in the Provinces of Great Britain, but in any of her Colonies as well.

Perhaps it will be possible for such alterations to be made before the bill comes up for the third time. Until recently, in our own Province, there has been a good deal of opposition to Dominion Registration, in case, by any means, the standard should become lowered. This, however, has been entirely overcome by paragraph 1, subsection 1, which expressly provides that no curriculum established by the new Council shall at any time be lower than the require-

ments for the most comprehensive curriculum then established for the like purpose in other Provinces.

By this bill, the whole Dominion will be thrown open to the graduate in medicine, who no longer will be subject to fine if he has the terrible audacity to cross the border and take charge of some intricate case, or still worse, have to submit to a second examination if he desires to change his residence. Then, again, what an advantage it will be to a graduate of the new Dominion Council to be able to take a position in the Imperial Service. We only wish the bill had become law ere the South African war broke out, and it would not have taken long for the Canadian graduate to show his mettle in the Field Hospital, and to prove that the standard of medical education in our Dominion is such that a Canadian Surgeon would not take a back seat with any man from St. Thomas', St. Bartholomew's or University College hospitals. The feeling in the past has been too patronizing altogether and "the man from the colonies" has been patted on the back somewhat and congratulated, if he knew anything of even minor surgery, alongside of his big brother from London, "by Jove." No, no, that will not do. We Colonials are younger, doubtless, but when it comes to the test we refuse to "go 'way back and sit down."

W. A. Y.

A PRESCRIPTION FOR OUR MILLIONAIRES.

Occasionally in this world one meets with what might be termed violent hospitality; but of late years the millionaires seem to be outdoing one another in overwhelming charitableness. The goodness of their hearts seems to overflow toward the building of hospitals. One strenuous instance recently, that is apt to impress itself upon the minds of physicians by its magnificence, and cause them to hope that Mr. Pierpont Morgan's example may not be followed by the rich men in other cities, was his gift of a palatial Lying-in-Hospital, erected in Second Avenue, New York City, at a cost of over $1,350,000, and which was opened to the public a short time ago. Such an institution will attract not only the very poor, but because of its elegant equipment ("cornerless rooms, illuminated ceilings, roof gardens, and solarium"), those also who could well afford to pay a physician and nurse, and could with a certain degree of comfort remain in their own homes during their *accouchement.*

We fear such fine charitable institutions, given for lying-in hospitals, will only encourage beggars to beget beggars, pauperize those who don't care to pay honestly for medical and other attendance, and cover the enormity of their sins in a measure for those unfortunates who are beyond feeling shame, and if this lavish generosity spreads to the millionaires of other cities, and causes the further erection of free palace hospitals dedicated to the treatment of other forms of disease, how is the twentieth century physician to exist? He cannot finance upon "thank you" cases, and it looks as though he had better "fold his tent, like the Arab, and silently steal away." Moral—Let our millionaires divide their bequests between the hospitals at present in existence and our universities.

W. A. Y.

FOOLHARDINESS.

We are all as tired as a New York messenger boy of the foolhardy notoriety-loving creature who goes over the Falls of Niagara in a barrel, dances the hornpipe or "bikes" across on a wire stretched over that terrible gorge. But all that sort of thing belongs to yesterday; the new spring style in foolhardiness is to go around refusing to be vaccinated and seeking the companionship of those afflicted with smallpox; at least, that is the Boston way. The cotillion there was led by a Dr. Pfeiffer, who begged to be allowed to visit and mingle with the patients in a Boston smallpox hospital. He refused vaccination, and declared boastfully that the disease was not contagious, and that he was sure he could personally prove his statement. He went to the pest-house and spent an hour in direct contact with the patients. Of course, according to the gay doctor's programme, no favors were to be distributed; but twenty-one days after he did his little turn, he received his reward in the shape of variola, and, poor man, will ever have cause to remember how he paid the piper. W. A. Y.

EAT, DRINK AND BE MERRY.

In a March number of *The Outlook*, "Spectator" dilates in a humorous way upon the dieting fad that is at present abroad in the land. In several paragraphs, among other things, he says: "Every-

body is dieting to-day—that is, everybody who can stand the expense. The modern motto of medicine appears to be, indeed, 'as a man eateth so he is,' and the doctor lays his mightiest stress on the daily dietary of the patient, and not upon his daily doses, as of old. The old woman who said feebly in former days, 'Leave the pills on the chimney-piece, dochter, and I'll take them when I feel a bit betther!' was wiser than her generation. The period of pills is passing, and diet dawns instead, in hopefully hygienic hues, upon a welcoming world. 'I might as well run a sanitarium,' complained one mother of a family the other day. We have five different sorts of health-food and three kinds of cocoa in the pantry and the cook is losing all patience with us.' 'Shure they're gettin' so that hot water'll be too strong for them soon, and this is no place for a gurrl that can make eleven kinds of cake!' was the *finale* of the afore-mentioned cook. If human needs in the breakfast line can be reduced to health-food and hot water, the Millennium dawns broadly."

EDITORIAL NOTES.

Rectal Feeding.—After operations upon the stomach and intestinal tract, it is often hazardous to feed the patient by the mouth for some time, and rectal feeding becomes indispensable. In cases of incoercible vomiting rectal feeding will conserve the patient's strength, until the stomach resumes its functions. It is generally recommended that the rectum should be emptied by a cleansing injection, before administering the nutritive enema. The patient is placed in a recumbent position lying on the side. The enema should be given at regular intervals through a rubber catheter, of large size, which should be introduced rather high up into the rectum. The amount of the enema should not exceed four or five ounces. The human organism requires for its sustenance albuminoids, fats, hydrocarbons and water, and we should endeavor when practising rectal feeding to give these substances in quantities approaching as near as possible to the average quantities of waste matters eliminated by the emunctories of the body. Several albuminoid substances, such as milk, white of egg, and meat-juice, are directly absorbed from the rectum. Milk and yolk of egg also supply fat. The hydrocarbons may be given in the form of glucose, which is absorbed without change. It should be given cautiously in the enema (not over 20 per cent.) owing to the danger of

causing diarrhea. The following formula for rectal feeding is proposed by Dr. Cesar Thomas, whose article appears in *Le Bulletin Medical de Quebec:*

Milk	150 grams.
Eggs	2.

Make an emulsion and add—

Glucose	30 grams.
Salt	1.50 grams.
Laudanum	1 to 3 drops.

for one injection. Four such injections to be given each day. As the organism loses a good deal of water, it will also be necessary to give a few injections of water containing some wine. Dr. Thomas says that these daily rectal enemas represent about 76 grams of albuminoids, 65 grams of fat, and 200 grams of hydrocarbons. The patient remains in bed and takes no food by the mouth, although to relieve thirst a small quantity of water may be allowed.

Fracture of the Forearm Caused by Running Automobiles.—At a meeting of the Academy of Sciences, Paris, January 13th, 1902, Dr. H. Foret reported several cases of indirect fracture of the lower end of the radius in automobile scorchers, caused by a tearing off of the end of the bone, through the action of the interior ligament of the wrist-joint. In one of his cases, the seat of fracture and the mechanism of fracture were different. It was a case of direct fracture of the radius, at the junction of the middle and lower thirds, caused by a blow from the handle-bar of an automobile on the outer surface of the patient's forearm; but his hand having been simultaneously placed in a position of forced extension, there occurred through the intermediary of the anterior ligament, a tearing off of the styloid apophysis of the ulna. This patient, therefore, presented a direct fracture of the shaft of the radius and an indirect fracture of the lower epiphysis of the ulna. This double lesion had not caused a noticeable deformity of the forearm, as the injured shaft of the ulna acted as a splint for the radius.

The Administration of Chloroform to Patients who have Heart Lesions.—In a paper read before the Academy of Medicine, Paris, February 11th, 1902 (*Le Progres Medical*), Dr. Huchard reported over 300 cases, in which chloroform had been administered, without fatal results, to persons affected with heart lesions. He thought that the administration of chloroform to persons of this class was less dangerous than it was generally thought to be.

The chloroform should be given in a deliberate manner, in small, progressive doses, a method which enables the anesthetist to avoid laryngeal syncope and toxic syncope. Nitrite of amyl should be provided, as it is useful in cases of syncope. Anesthesia should be absolutely complete before the operation is begun. In case a death occurs under the influence of chloroform, the chloroform itself is blamed for the result or a latent heart disease. As a matter of fact, Dr. Huchard thought that chloroform is generally of good quality, and latent heart diseases are not contra-indications. He thought that it was the general condition of the patient which was the cause of death; thus, in a certain case death under chloroform resulted from an acute, infectious endocarditis, arising during the course of a gonorrhea. The skill and attention of the anesthetist are also of the greatest importance.

Potatoes for Diabetic Patients.—In a paper read before the Therapeutical Society of Paris, February 12th, 1902 (*La Presse Medicale*), Dr. Mosse states that the potato is not only permissible to diabetics, but is a useful food and a medicine as well. If a diabetic patient takes from 1 to 1 1-2 kilograms of potatoes per diem on several consecutive days, he does not suffer so much from thirst, there is less glycosuria, and at the same time he has a feeling of improved health and recuperation of strength. The theoretical explanation of these results appears to be as follows: The potato is rich in potassium, which exists in it, combined with amylaceous and to a certain extent vitalized matter, so much so, indeed, that it is much more assimilable than when it is given in the form of salts of potassium, *e.g.*, citrate of potassium. The good effects of the potato cure are probably due to the absorption of potassium, which is a very useful alkali in diseases arising from a slowing of the processes of nutrition.

Apomorphine in Hysteria.—Dr. P. V. Faucher, in a paper read before the Quebec Medical Society, January, 1902, recommends the hypodermic use of apomorphine (gr. 1-15 to 1-10) in the treatment of hysteria. He said: "The prick of the hypodermic needle acts first on the patient's imagination, the vomiting comes to the rescue, and the ensuing nausea causes a complete sedation of the nervous system." And again, "Apomorphine, prudently administered, is a specific for an hysterical attack. By its use we are enabled to leave, in a few moments, to their own resources, patients who were wont to take up a good deal of our time, and who im-

perilled our medical reputation owing to the fact that we were quite unable to relieve them." Dr. Faucher also claims to have obtained good results from apomorphine, in the treatment of epilepsy and hystero-epilepsy. Not that he uses it as a specific for the cure of these diseases, but simply as a means of controlling attacks, which often cause practitioners a good deal of delay and annoyance.

Electrical Treatment of Sprains.—Drs. Charrier and Planet report favorably in *La Presse Medicale,* January 8th, on the treatment of acute and chronic sprains by the Faradic current. The negative pole is applied to the painful part during a sitting lasting five or ten minutes. Applications are made once or twice a day until the cure is complete. The principal result of this treatment is the immediate and almost entire relief of pain. Thanks to this analgesia, the patient recovers freedom of movement in the injured part. However, the disappearance of pain and its effects varies in duration and, as the pain returns, daily treatments are necessary. Absorption of the exudate about the injured joint also results from the electrical treatment. In the opinions of the authors, recent sprains are promptly relieved, and older ones receive more relief from the electrical treatment than from any other therapeutic measures.

Gelatin in Food Modifies the Plasticity of the Blood.—According to the views of Drs. M. Lafont and A. Lombard, published in a note in *La Presse Medicale,* by Dr. Labbe, diabetes, albuminuria, and hemophilia are always traceable to a common origin, viz., a variation in the cryoscopic properties of the blood. Even when an hepatic, a renal, or a capillary lesion is established anatomically, it may be remedied by raising the plasticity of the blood to the normal condition. To accomplish this object the authors use gelatine, and cause their patients to take a daily dose of 15 grams of gelatine dissolved in water.

Something for the Nose Specialists to Think Over.—Is it true that rheumatic attacks follow closely after cauterization of the nasal cavities for disease? Dr. Gallois, Paris, says he has seen rheumatic attacks appear three consecutive times in the same individual after operations on the nasal cavities. He thinks that as a rhino-pharyngeal catarrh favors the development of microbes, the asepsis of the nasal cavities of a patient should be secured by the use of lotions and sprays, before a cutting or a cauterizing operation is attempted.

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

AN EXPLANATION.

To the Editor of The Canadian Journal of Medicine and Surgery.

Dear Sir,—An explanation is due the medical profession regarding the articles published in the Toronto papers concerning the Ramage process for the treatment of consumption, etc.

The Ramage Company requested our permission to permit the reporters to see the machines, and asked us to demonstrate the process. No one regretted more than we did, on seeing the articles as published the following morning, as we instructed the reporters merely to refer to the process, desiring that nothing unprofessional should appear; but in their enthusiasm they entirely overlooked our instructions.

We may here just state that there is no secret remedy whatever used in the process. Yours truly,

James H. Cotton.
Holford Walker.

PERSONALS

Dr. J. W. S. McCullough, of Alliston, has been appointed Coroner.

Dr. H. B. Anderson left for New York two weeks ago, and expects to be away till May 1st.

Dr. Hood, of Spadina Avenue, with Mrs. Hood, leave on *SS. Commonwealth* for London this month, and will be absent for three or four months.

Dr. D. J. Gibb Wishart spent the first week of March in New York attending the meeting of the Eastern Section of the American Laryngological, Rhinological and Otological Society, and visiting the hospitals there and in Philadelphia.

Obituary

DEATH OF DR. W. S. MUIR, TRURO, N.S.

We are safe in saying that, for years past, death has removed no more popular or more lovable member of our profession than in the person of Dr. W. S. Muir, of Truro, N.S., last month. Dr. Muir died from appendicitis after but three days' illness, and just like the noble chap that he always was, he died with a kindly word for everyone on his lips. He had been complaining for just a day or two, and, if he had not been forced to give in, he would have been found in harness when the call came. Drs. D. H. Muir, Kent and Yorston operated upon him, and everything went well till towards the last, but our good friend never rallied.

He was born in Truro in 1853. He was a son of the late Samuel Allan Muir, M.D., L.R.C.P., who was born at Cookstown, Ireland, and lived subsequently at West River, Pictou Co., and from 1843 till the time of his death in Truro. His mother was formerly Miss Esther Crowe, of Onslow. She died in 1875.

He was educated at the old Model School under Principal Calkin, and the Normal School under the lamented Dr. Forrester. He studied medicine with his father, and at the Halifax Medical School of Dalhousie University, where he graduated in 1874. He then filled the position of House Surgeon in the Provincial and City Hospital, Halifax, now the Victoria General Hospital. Shortly afterwards he proceeded to Edinburgh, where he spent some time in study, and took the L.R.C.P. & S. of the Edinburgh College, in 1877. He also took a post-graduate course in Edinburgh in 1879, and another in London in 1891.

Ever since he commenced the practice of his profession in Truro, he has been eminently successful. From time to time he visited the chief centres of medical education in Britain and America, and took a keen interest in the advancement of the medical science.

He was a most active member of the Nova Scotia Medical Society. He was elected to the position of Secretary-Treasurer in 1887, and was annually re-elected to that office. It is not too much to say that the present flourishing condition of that Society is chiefly due to his untiring efforts on its behalf. He was Secretary of the Colchester Medical Society on its formation in 1883, and continued until its reorganization in 1889, when he was elected President.

In 1901 he was President of the Maritime Medical Association at its meeting in Halifax, and he also held office in the Canadian Medical Association, at whose meetings he was a frequent attendant. He held the position of examiner in Materia Medica and Therapeutics in both Dalhousie and King's Colleges, and was also an examiner for the Provincial Board. He was a Fellow of the New York Medical Society.

As a citizen, our deceased friend was an all-round man in every movement that was for the good of his town. He has long been associated with the work of the Society for the Prevention of Cruelty. When it was reorganized in Truro a few weeks ago, he was appointed Vice-President. After the death of the President, Mr. Longworth, Dr Will was asked to take that position by the unanimous request of all the members. His noble and sympathetic speech on that occasion will long be remembered by those who heard it. He particularly urged that it was the duty of those who were left to take the place of the toilers who fell by the way—and now, before he has had his first meeting of this Society, which he had called for Monday, March 17th, he, too, has given up life's work, and rests from his labors.

He has been indefatigable in his work for the amelioration of human suffering by working heartily for the establishment and continuance of a branch of the Victorian Order of Nurses.

Dr. Will Muir was a great promoter of all manly athletic sports, and the T.A.A.C. of Truro has lost a life member, and one of its most able advocates.

The firemen of Truro have lost a great friend in the removal of Dr. Muir. He was heart and hand with them in everything that tended to their best interest. He was their surgeon, and long will his genial ways be missed from their social gatherings.

In politics he was a staunch Liberal-Conservative, but he did not know what it was to be an offensive partisan.

He was a consistent churchman, and for years had been a member of St. John's Church choir. His undoubted liberality to his church and all its schemes were known only to those who are intimately associated with that communion; and his generosity to the poor and distressed was proverbial. The deceased leaves, in his immediate family, a widow, formerly Miss Catharine J., daughter of the late Walter Lawson, Esq., C.E., and a son, Walter, now a student at King's College, who is to follow his father's profession, entering McGill next year.

His brothers are, Dr. D. H. Muir, of Truro, and John A., late Superintendent of the Western Division of the Southern Pacific Railway, now general manager of the Electric Railway of Los Angeles, California, and two sisters, Mrs. Jamieson, of California, and Mrs. Carl von Pustau, of New York, also survive.

Items of Interest.

Austrian Balneological Congress.—The third congress of the Austrian Balneological Society will be held in Vienna March 20th to 23rd.

The Intercolonial Medical Congress of Australasia was held at Hobart, Tasmania, on February 17-22, under the presidency of Dr. Gamaliel Henry Butler, of Hobart.

Promotion of Dr. Bouffleur.—Dr. A. I. Bouffleur, of Chicago, who has been identified prominently with the medical and surgical department of the Chicago, Milwaukee and St. Paul Railroad, has been promoted to the position of chief surgeon.

Attention, Physicians.—We desire to correspond with physicians who desire good locations for the practice of medicine in the United States. Full information of excellent locations given free.—Independent Business Bureau, Waterloo, Iowa.

Increase of Medical Corps of U. S. Navy.—Recommendation has been made by Surgeon-General Rixey, of the U. S. Navy, that the Medical Corps of the Navy be increased by forty medical officers, this increase to be made by the addition of fifteen surgeons and twenty-five assistant surgeons.

Pasteur Institute, Budapest.—During 1901 the Pasteur Institute at Budapest treated 2,490 patients. Ninety-one per cent. of these were bitten by mad dogs, 6 per cent. by mad cats, and the rest by other animals. The average length of treatment was 18 days. Of the total number treated, 28 per cent. only contracted hydrophobia.

The First Lady Doctor in Germany.—Hildegarde von Becklesheim, also called Hildegarde von Bingen, abbess of the cloister on the Ruprechtsberg at Bingen, who lived from 1098 until 1170, is said to have been the first lady physician, who not only practised medicine, but wrote her experiences and her teaching in works which are still extant.—*Philadelphia Medical Journal.*

Doctor Wanted at Once.—We have been written and asked to secure a medical man for Castleton, Ont. It seems that there is at present no doctor there, and one is badly needed. Castleton is a prosperous village,and a live, up-to-date practitioner would probably do well from the first day. A married man would be preferred. For further particulars write Mrs. N. P. Watt, Castleton, Ont.

Congress on Internal Medicine.—The Twentieth Congress on Internal Medicine will be held April 15th to 18th, at Weisbaden, under the direction of Professor Naunyn, of Strassburg.

Dr. Harbottle's Sentence.—The Government has refused to interfere with the sentence of Dr. Harbottle, of Burford, who is now in the Central Prison for shooting Herman Stewart.

Fifty Years a Physician.—The physicians of Winnebago County, Ill., banqueted, on February 23rd, Dr. Clinton Helm, in celebration of the fiftieth anniversary of his graduation in medicine.

The New Relief Station of the Boston City Hospital was opened for the reception of patients at 9 o'clock on February 20th. A patient was suitably cared for within fifteen minutes of the time of the opening.

Revaccination.—During the past year not a single case of smallpox has occurred among the staff of the London smallpox hospitals, indicating that careful revaccination is an absolute safeguard against that disease.

Skiagrapher to the Cook County (Ill.) Hospital.—The value and importance of X-ray work has been officially recognized by the authorities of the Cook County (Ill.) Hospital by the appointment of Dr. H. J. Heiselden as attending skiagrapher to the institution. —*N. Y. Med. Jour.*

Dr. Leidy, of Philadelphia, Honored.—Dr. James Leidy, jun., has been honored by the French Government with the insignia of *Officier d'Instruction Publique*, for services rendered during the exposition of 1900, where he represented the United States on the International Jury of Hygiene.

The Royal Commission on Tuberculosis.—It is understood that the English Royal Commission on Tuberculosis has been tendered the use of two farms situated at Stanstead, Essex County, belonging to Sir James Blyth, for carrying out their experimental work on the prevention and cure of tuberculosis.

The American Medical Association.—The demand for space by exhibitors at the meeting of the American Medical Association, to be held at Saratoga Springs in June, has been so great that a special annex to the Hathorn Spring building is being erected to provide the additional space required.—*N. Y. Med. Jour.*

Dr. Enno Sander Dined.—A banquet was given Dr. Enno Sander, of St. Louis, on the occasion of his eightieth birthday, February 26th. The St. Louis College of Pharmacy conferred the degree of Professor emeritus of materia medica and botany upon the doctor. He was also elected an honorary member of the alumni association of the institution.

Cremation in a Dissecting Room.—A blaze in the dissecting room of the West Penn Medical College, Pittsburg, February 23rd, caused damage to the extent of $1,500.

Dr. David Roberge, of Montreal, died, aged 32, from pneumonia. He was a graduate of Laval University, and for some time after graduation served as house surgeon at the Notre Dame Hospital.

International Medical Press Association.—The reunion of the official delegates to the International Medical Press Association will be held on April 7th at Monte Carlo, under the auspices of the Prince of Monaco.

Immense Sums for Harvard.—Harvard University Medical School needs $4,950,000 to carry out the plans projected. All but $294,000 has been contributed, and the trustees still have four months in which to secure the balance. One gentleman from New York has contributed $100,000, and the faculty has subscribed $75,000.

Down with the Quacks.—Committees from the Wayne County Medical Society, the Detroit Medical Society, and the Homeopathic Practitioners' Society met March 3 to plan a crusade against the quacks of Detroit, who number about forty. Dr. B. D. Harrison, Secretary of the State Board of Registration, will co-operate with the joint committees in the work.

A High Honor awarded to One fully deserving of it.—Dr. Gelineau, originator of Gelineau's Dragees and Syrup Gelineau, for the treatment of epilepsy and nervous diseases (remedies which have a large sale in France, and are being adopted in Canada by the profession), was awarded by the French Academy of Medicine on November 26th last an Honorable Mention and a prize of 300 francs for his treatise upon the subject of Epilepsy.

St. Louis Exposition.—The surgical department of the Army, which has a most extensive museum in Washington, will send to the military exhibit everything that would be appropriate for the establishment of a field hospital in a camp, composed of U. S. Regulars. In this hospital the most perfect and rigid sanitary measures will be enforced as an object lesson against the accidents in the volunteer camps during the Spanish-American War.—*Philadelphia Medical Journal.*

New University Statute.—The Senate of Toronto University passed a statute two weeks ago, under the terms of which it will be possible, hereafter, for a candidate to secure the degree of Bachelor of Arts at the end of his fourth year, and the degree of Bachelor of Medicine at the end of his sixth year. It is proposed to introduce anatomy as an option in the third and fourth years, and in this way to enable a student at the end of the fourth year in arts to proceed directly to the third year in Medicine.

A New Medical Journal.—The *Mobile Medical and Surgical Journal* is the most recent addition to medical journalism. It is to be edited by Dr. E. L. Maréchal, and published monthly. The number contains sixty-four octavo pages of good reading matter. We wish the publication success.

A Total Abstinence Hospital.—The articles of incorporation of New York Red Cross Hospital, approved recently by the State Board of Charities, contains the following sentence: "Alcohol, as alcohol, or in any of its forms, shall never be used in the said hospital for internal medication or as a beverage."

Quebec College of Physicians and Surgeons.—The following physicians were recently elected to represent the different universities of the Province of Quebec on the College of Physicians and Surgeons of the Province: University of McGill, Drs. Craik and Lafleur; Laval University, Quebec, Drs. Simard and Catellier; Laval University, Montreal, Drs. E. P. Lachapelle and Demers; University of Bishop's College, Montreal, Drs. F. W. Campbell and J. H. McConnell.

Congress of French Doctors.—At a representative gathering of the French Canadian physicians of the Province of Quebec, held in Montreal, it was unanimously decided to hold a congress of the French doctors of America at Quebec during the month of June. The congress will be held in conjunction with the celebration of the golden jubilee of the Laval University of Quebec, and it is proposed to make it the largest and most comprehensive of its kind yet held in this Province.

The Montreal Medico-Chirurgical Society is entering upon a new era of prosperity. During the past year fine new commodious quarters have been secured in the West End Branch of the Bank of Montreal. They comprise a large meeting hall, nicely and comfortably furnished, and capable of seating 125 persons. Adjoining is a coat-room and reading-room, with a stock-room for the accommodation of the library and a committee-room. In the reading-room all the important medical journals are kept on file.

Dr. Jessop's Bill.—The special committee of the Legislature appointed to deal with Dr. Jessop's bill to change the composition of the Ontario Medical Council, brought its work to a close on March 13th, after numerous stormy sessions. The result is that the bill is withdrawn. The Medical Council has been requested by the Government to submit a referendum to the profession on the general question of whether there is dissatisfaction with the present composition of the board. It is understood that the referendum will take place along with the elections of the councillors next fall, and in order that a fair vote may be obtained the disqualification will be removed from some 300 doctors who have been refusing to pay their council fees.

Dr. James McLaren Dead.—A veteran medical practitioner passed away on March 7th, at Deer Park, in the person of James McLaren, B.A., M.D. Deceased was born in Nelson Township in 1824, where he received his common school education. He then went to Queen's College, Kingston, where he graduated with honors about 1850, and afterwards studied medicine under Dr. Rolph in the old Toronto School of Medicine, whence he took his degree of M.D. For several years he had lived with his wife, who survives him, at the residence of Mr. McCully, Deer Park. Interment took place at Nelson.

New Woman's Hospital.—At a meeting of the Alumnæ of the Woman's Medical School of the Northwestern University, held at the Sherman House, February 27th, it was decided to establish a hospital to perpetuate the memory of the school that has been sold by the Northwestern University. The new hospital will be entirely under the management of women physicians. All the different branches of medicine, including surgery, will be practised. Alumnæ of the school which has been sold will act as its physicians. No man can enter this hospital except as guest, janitor or patient. There will be an advisory board composed of women, also.

Honors for a Canadian Physician.—Dr. Harry J. Watson, a graduate of Trinity Medical College of this city, has been appointed chief of the Medical Department of the largest Brigade Hospital in the Philippines. The U. S. Army has over 475 doctors on the active service list in these islands, and it can, therefore, be considered a high honor that has been deservedly won by Dr. Watson. His superior officers have recommended him for a "majority" for distinguished service in the presence of the enemy. We have no doubt but that the graduates of "Old Trinity," Class 1896, will be pleased to see that the doctor is maintaining the traditions of his *Alma Mater*.

The Scope of Carnegie's Gift.—President Gilman, of the Carnegie Institute, states that no part of the $10,000,000, or the income therefrom, donated by Mr. Carnegie, is to be used in the erection of buildings or the acquirement of real estate. The Carnegie Institution is merely to exist in Washington in offices. There will be no corps of instructors and no college buildings. If a scientist at Yale, Harvard, Princeton, or any other university reaches a point where he is unable to continue for lack of funds, the money necessary to complete his work will be supplied. Washington will be merely the headquarters of the institution, where the board of trustees and officials hold their meetings.—*Phila. Med. Journal.*

Promotion for Dr. William Nattress.—Lieutenant-Colonel William Nattress received his promotion from the rank of Surgeon-Major three weeks ago, and is heartily congratulated on all sides. Some years ago Dr. Nattress succeeded the late Dr. Strange

in his post as military surgeon at Stanley Barracks. Four years ago he went to England and took an important course at Netley and Aldershot. Colonel Nattress is fortunately in his old form again, after some time of illness from catarrh, and is residing "among the pines" at one of the old Denison homesteads, Rusholme, which lies far from the bayside, and on high ground. His advancement is a just recognition of his talents and his hard study and work in his profession, and as such is doubly valuable and gratifying.

Canadian Medical Association.—The annual meeting of the Canadian Medical Association will be held in Montreal on the 16th, 17th and 18th days of September, 1902. The President is Dr. Francis J. Shepherd, 152 Mansfield Street, Montreal; the Local Secretary, Dr. C. F. Martin, 33 Durocher Street, Montreal, and the General Secretary, Dr. George Elliott, 129 John Street, Toronto. Dr. William Osler, Professor of Medicine in Johns Hopkins University, will deliver the Address in Medicine, and Dr. John Stewart, Halifax, Nova Scotia, the Address in Surgery. Arrangements are already well in hand for a very large meeting.

Distribution of Firm's Stock.—The firm of Parke, Davis & Co., manufacturing pharmacists of Detroit, has adopted the policy of other large corporations of encouraging its employees to become shareholders. This company proposes to issue 4,000 shares of its capital stock, and permit the oldest among its employees, especially those in important positions, as managers, superintendents and foremen, to purchase this new stock at $55 a share. The present market value of the stock is $70 a share, and face value $25 a share. The company announces that it is not taking this action for philanthropic reasons, but because it considers it good business judgment to have its men in important positions interested in the profits of the business.—*Medical News.*

Dr. von Bergmann Honored.—Dr. Von Bergmann, professor of surgery at the University of Berlin and director of the university surgical clinic, has been invested with the rank of real privy councillor. This dignity, which is the highest of its class in Germany, carries with it the title of excellency and is, as a rule, conferred only on great officers of State, and persons occupying important positions at court, very few medical men having been thus honored. Professor von Langenbeck, who preceded Professor von Bergmann in the chair of surgery in Berlin University, was invested with this rank, but not until he had reached an advanced stage of his career, although in addition to his scientific eminence he had distinguished himself in two great wars. Professor Esmarch, of Kiel, has also been Wirklicker Geheimer Rath, though

his social connections are of such a character as to render this fact somewhat less of a compliment to his ability than in the case of Professor von Bergmann. He and von Bergmann are the only two physicians now bearing the title.—*N. Y. Medical Journal.*

The Medical (Extensions) Act of the English Parliament as it Affects Canadian Surgeons.—The bill to amend the Medical Act of 1858 has been reintroduced into the British House of Commons by General Laurie, a member thereof, who was some years ago a member of the Canadian House of Commons from Nova Scotia. It has been suggested to General Laurie by the fact that the War Office has refused to allow colonially trained surgeons from Canada to attend professionally on other than Canadian troops on active service in South Africa, holding that it was contrary to the Medical Act of 1858. Leading surgeons of Canada, at the opening of the war, volunteered for service, but had to be refused, and on this account General Laurie seeks to remove these disabilities.

Antitoxin Investigation Aftermath.—The logical results of the antitoxin investigation in St. Louis are now taking place. The city authorities have placed the responsibility upon Dr. Ravold, and his resignation followed immediately. There is no question of Dr. Ravold's ability as a bacteriologist, and it was unfortunate, to say the least, that the conditions in the city laboratory made such errors possible. The city should never have undertaken to make antitoxin without a thorough equipment. The bacteriologist was not an independent officer of the Board of Health, but was rated simply as an employee. Now it is proposed to establish the office of "City Bacteriologist," to which the appointee shall give his whole time. Following the conclusion of the investigating committee's work, suits for damages against the city are being instituted by the relatives of the dead children. One suit for $20,000 is now pending.—*Jour. A. M. A.*

Death of Dr. Jackes.—Dr. George W. Jackes, of Eglinton, died very suddenly on the 7th ultimo, the cause of death being a stroke of apoplexy. He had not been in good health for some months. As late as 10.30 on the morning of his death he was seen on Yonge Street, when he was on his way home, and was stricken just as he arrived there. Deceased was fifty-one years old, and was one of the best known physicians in the suburban districts. He was a member of the Methodist Church. He was a son of the late Franklin Jackes, of Eglinton, and had practised in Eglinton for over twenty-five years. He married a daughter of Capt. Snider, of Eglinton, and two sons, Ernest, of Winnipeg, and Bertram, of Toronto, survive him. James A. Jackes, of Ipswich, Australia, Price Jackes, Chemist, and Charles Jackes, of Jackes & Jackes, Toronto, are brothers, and Mrs. John Laidlaw and Mrs. James Brown, Niagara, are sisters of deceased.

New Method of Taking the Oath.—In pursuance of the recommendation made in the editorial on pages 182 and 183 of our March (1902) issue, the Attorney-General of this Province, at the session just closed, introduced a clause into the statute dealing with this matter, whereby any one in Ontario, compelled to take an oath, may do so if he wishes, after the Scotch fashion of uplifting the hand and repeating the following words : " I swear by Almighty God, as I shall answer to God at the Great Day of judgment, that I shall tell the whole truth, and nothing but the truth, so far as I know it, and the same shall be asked of me." Mr. Gibson's attention has been called, apart from comments such as ours, to the remarks of judges on the unsanitary nature of the practice of kissing the book, avoided by some people by kissing their thumbs. We highly approve of the Attorney-General's action herein.

A Female Physician at Toronto General Hospital.—A female physician is to be appointed to the staff of the Toronto General Hospital. This announcement was made at a meeting of the Woman's College Hospital Executive, held on the 13th ultimo. A communication from the General Hospital Board was read, stating that a woman would be appointed to the staff each year as a house surgeon, and asking that the names of suitable candidates be forwarded after the spring examinations. Two women physicians will also be appointed as registrars. The first appointment of a woman physician on the local hospital staffs was made by the Western Hospital, two or three years ago. The Committee was instructed to interview the Boards of St. Michael's Hospital and the Hospital for Sick Children with reference to the appointment of women surgeons on their staffs.

Victory for the Vapo-Cresolene Co.—The Vapo-Cresolene Company were plaintiffs in an action in the Non-Jury Assizes recently, in which they sought an injunction to prevent Jones & Company, of Toronto, from offering for sale their Carbo-Cres Vaporizer, put up in such a form as to lead people to believe that it was the same as that offered by the Vapo-Cresolene Company, protected by patents. Judge Street ordered that a perpetual injunction restraining Jones & Company from continuing to offer for sale the lamp and censer in question in such a manner as to lead purchasers to suppose that they were those sold by the Vapo-Cresolene Company, and particularly restraining them from putting up the goods in packages of a nature to lead the public into error as to the origin of the goods. Jones & Company were also ordered to pay plaintiff's costs, and if demanded by plaintiff to submit to an examination by the Master in Chancery of the profits made by them upon the sale of these articles, in order that it might be determined what they ought to be adjudged to pay over to the plaintiff. We congratulate the Vapo-Cresolene Co. upon their well-deserved victory.

Decision of the Supreme Court Regarding Healers.—The Supreme Court of Illinois has decided that magnetic healers and osteopaths must have a license to practise, in the case of the People *versus* George P. Gordon, an advertising healer of Rockford. It is said that Gordon was charged with practising medicine without a license, and that after the trial the Circuit Court directed the jury to find for the defendant. The Supreme Court reversed and remanded the case. The following is the text of the finding of the Court: "We all agree that the object of this (the statute) is to protect the sick and suffering and the community at large against the ignorant and unlearned, who hold themselves possessed of peculiar skill in the treatment of disease, and to prevent them from holding themselves out to the world as physicians and surgeons without having acquired any knowledge whatever of the human system or of the disease and ailments to which it is subject. Without some knowledge of the location and offices of the various nerves, muscles and points, the manipulation of those parts, and the flexing of the limbs cannot be intelligently, if indeed safely, practised. Merely giving massage treatment or bathing a patient is different from advertising one's business or calling to be that of a doctor or physician, and, as such, to administer osteopathic treatment. The one probably falls within the profession of a trained nurse, while the other does not."—*Medical News.*

The New York State Amended Vaccination Act.—This Act has been read twice and committed to the Committee on Public Health. Its provisions contemplate far more stringent regulations with regard to the enforcement of vaccination than are at present in force. The vaccination of school children is strongly insisted upon. The Board of Health of each city or town is required to furnish the means of free vaccination or revaccination to all the inhabitants thereof, and can enforce the fulfilment of this measure, whenever in the opinion of said Board the public health and safety demands such action. The local boards of health are invested with the power to quarantine for fourteen days any person who refuses to be vaccinated. Principals of schools, colleges or universities, superintendents of almshouses, State reform schools, industrial schools, hospitals and the like, commanding officers of the National Guard, proprietors or managers of manufactories or of business houses, heads of police or fire department of any city, or public and municipal officers of any kind, are required to take care that no person shall remain under their charge or in their employ who shall not have been successfully vaccinated within a period of five years, except upon presentation of a certificate, signed by a registered physician, stating that he has twice vaccinated said person without success, and that there exists vaccinal insusceptibility.

Tuberculosis in Havana.—The Health Officer of Havana, Major W. C. Gorgas, Surgeon U. S. Army, has recently given much attention to the prevention of the spread of tuberculosis in that city. A sanitary census taken of the city shows the existence of 1,187 cases of tuberculosis, and these have been urged to apply to dispensaries as out-patients for relief, sleep with bedroom windows open, avoid confining occupations, and take proper precautions relative to the disposal of the sputa. Special attention has been given to the cigar manufactories in this respect, particularly since tubercle bacilli were found in cigars which had been made by a consumptive. To this end, cigar workers are required to moisten the tips of cigars, in finishing them, with sponges, instead of with the lips, as was formerly done, and work benches are placed so as to face the same way instead of toward each other. The public reader, a peculiar institution common to all Cuban cigar factories, who is hired to read newspapers, novels, etc., to the hands while at work, will in the future be required to devote a portion of his time to reading matter relating to elementary hygiene and the prevention of disease. The work is essentially educational and persuasive rather than coercive, and is meeting with hearty support from the Cubans.—*Medical Record.*

Cancer Investigation by German Government.—The budget committee of the Reichstag, at Berlin, on March 4th, heard a government representative on the subject of cancer investigation. Various physicians had submitted statistics of 12,000 cases. These seemed to demonstrate positively that cancer is not hereditary. On the other hand, the disease is doubtless contagious. There are certain districts where there is constantly recurrent contagion. The disease is never traceable through plants, but can very often be traced through animals, especially dogs and cats, which are frequent sufferers from the disease. Horses and cattle seldom suffer from it. The Government will now establish a cancer research branch in Berlin, devoting two departments of the Charity Hospital to the treatment of patients. In addition to this, 150,000 marks annually for three years are guaranteed from private sources for the Cancer Institute at Frankfort-on-the-Main, under Prof. Ehrlich, whose studies and experiments, the Government hopes, will result ultimately in the discovery of a certain cure. The committee voted the credit the Government asked to promote investigation. An article by Dr. Mutzdorf has been published, and has attracted much attention. It shows a large increase in cancer since 1892. Statistics do not support the idea that persons of advanced age are chiefly afflicted. They show that the disease attacks its victims earlier than formerly. Dr. Mutzdorf adds that, although women art still more liable than men to contract the disease, the relative immunity of the latter is decreasing.

The Physician's Library.

BOOK REVIEWS.

Manual of Venereal and Sexual Diseases. By Wm. A. Hackett, M.B., Ph.G., M.C.P.S.(Ont.), Professor of Dermatology and Venereal Diseases, Michigan College of Medicine and Surgery; Attending Physician to the Emergency Hospital, Detroit; Member of Wayne County Medical Society, Detroit Medical Society, etc.; and N. E. Aronstam, M.D., Ph.G., Assistant in Chemistry and Clinical Dermatology, Michigan College of Medicine and Surgery; Attending Physician to the Emergency Hospital, Detroit; Member of Wayne County Medical Society, Detroit Medical Society, Medico-Legal Society (New York), etc. 1901. Chicago: G. P. Engelhard & Company.

This work is made up of four parts. There are 208 pages, including Index, Table of Contents, and a few illustrations of instruments. The first part is devoted to Gonorrhea, acute and chronic, with complications. Part II., Chancroid and its complications. Part III., Syphilis. Part IV., Sexual Diseases.

Chapter III., Part I., will be found of especial interest to the doctor who wishes to explain away the urethral discharge of his patient in a more scientific manner than the time-honored water closet. It deals with the subject under the headings of Specific, Due to Neisser's Diplococcus, and the Non-Specific, Due to other Micro-organisms, such as the trichomaines vaginalis, tubercular infection, uric acid diathesis, etc. On page 53 the statement is made that many men contract typical gonorrhea from women either during or immediately after the menstrual epoch, the women being free from gonorrhea. These cases are usually severe in character. It is possible for a man to contract gonorrhea from the secretions of the uterus, a lacerated cervix and perineum, and vulvo-vaginal secretions due to uncleanliness." This makes it absolutely necessary for us to find the gonococcus in every case where there is a possible doubt before we pronounce it a pure gonorrhea. Part IV., consisting of some 50 pages, is devoted to sexual diseases, and will be found instructive to those who wish information on this much neglected and unsavory subject. Altogether, we consider this a very practical and up-to-date work. Price, $1.00.

W. J. W.

The Medical Annual: A Year-Book of Treatment and Practitioners' Index. 1902. Twentieth year. Bristol: John Wright & Co., Stone Bridge. London: Simpkin, Marshall, Hamilton, Kent & Co., Ltd. Edinburgh: Young J. Pentland. Glasgow: A. Stenhouse. New York: E. B. Treat & Co. Calcutta: Thacker, Spink & Co. Paris: Boyveau & Chevillet. Melbourne, Sydney, Adelaide and Brisbane: G. Robertson & Co. Sydney: Angus & Robertson. Toronto: J. A. Carveth & Co.

We notice among the contributors to "The Medical Annual" for 1902 the names of such men as Herbert W. Allingham, Jas. Cantlie, E. H. Fenwick, Richard Barwell, Prof. Loomis, Wm. Murrell, Jos. McFarland, Jos. Priestley, Boardman Reed, and Norman Walker. It can therefore be readily seen that the material in the twentieth edition of "The Medical Annual" is the very best procurable. When we glance over "The Medical Annual" as published even ten years ago, there is a very big difference in the size of the work then to what it has now assumed. It now covers well on to 1,000 pages, each page bristling with good, practical material. "The Medical Annual" is certainly looked upon as being one of the greatest helps to the general practitioner, so that it is little wonder that the demand for it has increased from year to year. "The Annual" for 1902 is no exception to the rule, but if anything, is better than ever.

Hand-Book of Bacteriological Diagnosis, for Practitioners: Including Instructions for the Clinical Examination of the Blood. By W. D'Este Emery, B.Sc.(Lond.), Lecturer on Pathology and Bacteriology in the University of Birmingham. London: H. K. Lewis, 136 Gower Street. W.C. 1902.

A sure sign of advancing times is the publishing of such works as this. A few years ago the general practitioner knew very little of the value of bacteriology as an aid to diagnosis, much less did he ever attempt any investigations along this line himself, but now-a-days nearly every general practitioner carries on a certain amount of bacteriological research for diagnostic purposes. We have here a neat little handbook devoted especially to the general practitioner, on bacteriological diagnosis.

It is essentially practical, only dealing with the more simple methods, which are easily obtainable, requiring a very moderate amount of technical skill. It points out firstly *when* a diagnosis can be made, and then gives a clear and full description of the methods employed.

We notice a number of repetitions, thus avoiding a continual reference to other chapters. In the majority of cases each section is complete in itself. Following the instructions is the interpretation of the results which may be obtained; this often opens the

eyes of the investigator to the reason why he often does not get the results he expected from his examination.

An important section is the one dealing with the manner of sending specimens, and what to send to the public laboratory in those instances where the general practitioner thinks it advisable for the specialist to do the work. We so often get incorrect reports due to our want of knowledge in this respect. The Hand-Book contains two very good plates of the commoner bacteria, also many excellent illustrations.

The subject is divided into three parts :

Part 1. The Apparatus and Processes.

Part 2. Diagnosis of Certain Diseases.

Part 3. Collection and Examination of Certain Morbid Materials.

The reliable and world-famed publisher, H. K. Lewis, Gower Street, London, has kept this book well up to his usual high standard of excellence. We recommend the general practitioner who intends to do any bacteriological work to invest. W. H. P.

Hughes and Keith: A Manual of Practical Anatomy. By the late Prof. Alfred W. Hughes, M.B., M.C.(Edin.), etc., Professor of Anatomy, King's College, London; Examiner in Anatomy, Royal College of Surgeons, England, etc. Edited and completed by Arthur Keith, M.D.(Aber.), F.R.C.S.(Eng.), Lecturer on Anatomy, London Hospital Medical College, etc. In three parts. Part I.: The Upper and Lower Extremities. Illustrated by 38 colored plates and 116 figures in the text. Published by P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia. 1901. Price, $3.00 net. Canadian Agents: Chandler & Massey Limited, Toronto and Montreal.

If for no other reason than that Prof. Hughes, the author of this work, died serving his country (he died Nov. 3rd, 1900, at the age of 39, from typhoid fever a few days from the time he landed in England, after having charge of the Welsh Hospital at Springfontein and Pretoria, South Africa), his book on Practical Anatomy should be purchased. Apart from all that, it is a volume worth a great deal more than the price asked for it by the publishers, and will be found to be a most accurate and comprehensive study of anatomy from a practical standpoint. Yet it is boiled down into three parts. Part I. consists of the Upper and Lower Extremities, and is well illustrated, about forty of the plates being colored. In Part II. we will find the Anatomy of the Abdomen and Thorax, and in Part III. the Head, Neck, and Central Nervous System are to be considered. The author strongly favors the formalin method of preserving subjects now in vogue, and arranges his system of dissection accordingly. We like very much the idea

of a work of this subject being divided into several parts, as one volume is too ponderous, and therefore less suitable for College work. The only objection which might be taken would be that some of the plates are rather too highly colored.

Pediatrics—The Hygienic and Medical Treatment of Children. By Thomas Morgan Rotch, M.D., Professor of the Diseases of Children, Harvard University. Third edition, rearranged and rewritten. Illustrated by numerous engravings in the text and colored plates. Philadelphia and London: J. B. Lippincott Company. 1901. Canadian Agent: Chas. Roberts, Montreal.

To the general practitioner a knowledge of the management of the diseases of children is of the very first importance, as it is a kind of knowledge which makes his services valuable to the families he attends. In looking over the book we have been particularly attracted by the descriptions given of the exanthems, and have most closely read the chapter on measles. It is a scientific, practical statement of the facts known about that disease. As tuberculosis is a common sequela of measles that exanthem merits more study than it has received from the profession. Much attention is devoted to the subject of infant feeding, and instruction is given as to the preparation of foods, the modification, sterilization, etc., of milk in infant feeding. The language used is clear and concise. The illustrations are numerous, and the photographs, showing life-studies of particular diseases, very instructive. The work is well printed, and is a credit to the publishers. J J. C.

Compend of General Pathology. By Alfred Edward Thayer, M.D., Assistant Instructor in Gross Pathology, Cornell Medical College; Pathologist to the City Hospital; formerly Fellow in Pathology, Johns Hopkins University; Instructor in Anatomy Yale Medical College; and Professor of Pathology and Bacteriology, West Virginia University. Containing 78 illustrations, several of which are printed in colors. Price, cloth, $0.80 net. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1902. Canadian Agents: Chandler & Massey Limited, Toronto.

This is one of a series of eighteen published by P. Blakiston's Son & Co., by different authors, and covering the field of medical science. They are based on the most popular text-books and lectures, and thoroughly represent the present state of the subjects on which they treat. The present volume contains 322 pages, including an index. It is in nice type and on good paper, and the illustrations are good. We are very much pleased with this volume. It is very full and concise, and will be found very helpful by both student and practitioner. W. J. W.

Nursing—General, Medical, and Surgical, with Appendix on Sick-Room Cookery. By Wilfrid J. Hadley, M.D., F.R.C.P., F.R.C.S., etc., etc., Physician and Pathologist to the London Hospital; Lecturer to Nurses at the London Hospital Nursing School; Assistant Physician to the Chest Hospital, Victoria Park. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1902. Canadian Agents: Chandler & Massey Limited, Toronto.

Part I., on general nursing, occupies the first seventy pages, and gives a great many useful directions for handling the patient, watching the progress of the case, reporting to the physician, and making the various applications ordered. This covers the special work of the nurse very well.

Parts II. and III., on medical and surgical nursing, aim at giving the nurse some idea of the various diseases, injuries and operations, including symptoms and such treatment as is usually ordered for a nurse to apply. We are sure nurses will find this a very useful manual. The volume contains 326 pages including, in addition to the chapters on nursing, an appendix on sick-room cookery, which will be found very useful, and an index. W. J. W.

Bailey and Cady: A Laboratory Guide to the Study of Qualitative Analysis. By E. H. S. Bailey, Ph.D., Professor of Chemistry, and Hamilton P. Cady, A.B., Assistant Professor of Chemistry in the University of Kansas. Fourth edition. 12mo, 235 pages. Published by P. Blakiston's Son & Co., 1901. Price, in cloth, $1.25 net. Canadian Agents: Chandler & Massey Limited, Toronto and Montreal.

This little guide-book has been written not only to teach facts and mechanical methods of carrying out the various operations of analysis, but also to render them more intelligible and interesting to the student. We notice new methods for the separation of arsenic, antimony, and tin, and also for the separation and identification of the acids.

The aim of the author has been to produce a book which would enable the careful student to successfully carry on analysis without the constant assistance of the instructor, and to this end every precaution which considerable experience could suggest has been taken to guard against sources of error. The scope of this work is necessarily limited, but it certainly seems to thoroughly fulfil the intention of the author. W. H. P.

Where the Sugar Maple Grows. By Adeline M. Teskey. Toronto: The Musson Book Company. Cloth, $1.25.

Pen sketches of village characters, well drawn by a bright Canadian woman, who lives in the vicinity of the place from whence she

finds the material for her story. One special character, The McCloskey Boy, is amusing, as well as interesting, and now he has fulfilled all the hopes and predictions of the Auld Wives of the village by becoming a member of Parliament. It would seem to the reader as though Adeline Teskey was only feeling her way in this bright book, and the woman who has spoken so simply, yet harmoniously, might say very much more, and say it wonderfully well.

W. A. Y.

The Benefactress. By the author of "Elizabeth and Her German Garden." Toronto: The Copp, Clark Company, Limited.

Surely everybody has read, "Elizabeth and Her German Garden," and smiled at her odd bits of satire and quiet humor. Here comes another delightfully restful story by the same authoress, almost as quaintly told and almost as diverting. Open it expectantly, enjoy it thoroughly, close it contentedly, turn over and go to sleep; it's "a brain-rester"—it won't disturb your forty winks. Tastefully bound in olive and gold, and only one dollar and a quarter. W. A. Y.

Transactions of the American Ophthalmological Society. Thirty-seventh Annual Meeting. New London, Conn. 1901.

Among the most interesting articles may be mentioned those on the treatment of the apparently unaffected eye in monolateral glaucoma; X-ray in injuries from foreign bodies, and the report on standards and methods for examination for acuteness of vision, color sense and hearing.

LITERARY NOTES.

The Cosmopolitan.

No attempt has ever been made to get together any congress representing the highest intelligence of the various nations of the world. The nearest approach to this was the Peace Conference at The Hague. The failure of that body was caused by the fact that it was selected to represent political and personal interests. It will be interesting to note the results which must come from the first World's Congress in which all nations shall be represented by men of the highest integrity and intellectual calibre. The difficulties in effecting such a gathering are almost insurmountable, but *The Cosmopolitan Magazine* is making the effort with a full recognition of the endless obstacles to be overcome. In the March number, *The Cosmopolitan's* plan is briefly outlined. Its agents in Europe and elsewhere are carefully maturing lists of the ablest men of each country, considered with reference—(1st) To their sincerity; (2nd) their earnestness; (3rd) clear thinking; that is, ability to see the truth; (4th) broad experience in affairs.

These names are five times as great in number as the candidates to be eventually selected. Upon these the opinions of leading men in other countries will be secured, so that the final selection will represent a consensus of opinion by the leading men of the world of thought. *The Cosmopolitan* is also endeavoring to secure by contribution a fund of a quarter of a million dollars to provide for the expenses of the first World's Congress.

Macmillan & Co.'s Canadian Branch.

An item of interest to the Canadian book trade and bookbuyers is the news that Messrs. George N. Morang & Company, Limited, of Toronto, will hereafter be the sole agents in Canada for all books published by The Macmillan Company of New York. Messrs. Morang & Company will sell the books at the same prices in Canada as those at which they are sold by The Macmillan Company in New York, and the same discounts will also be given to the Canadian booksellers and dealers as are given in the United States. Messrs. Morang & Company have now in the press a complete catalogue of The Macmillan Company's publications, which will be issued by them immediately. One material gain to the bookbuyer by this arrangement will be the saving of the two or three days' time which is now taken up in the transmission of orders to New York.

A very timely "Treatise on Smallpox," to sell at $3.00, is announced for publication early this month by J. B. Lippincott Company. It is written by Dr. George Henry Fox, Professor of Dermatology in the College of Physicians and Surgeons, New York City, with the collaboration of Drs. S. Dana Hubbard, Sigmund Pollitzer, and John H. Huddlestone, all of whom are officials of the Health Department of New York City, and have had unusual opportunities for the study and treatment of this disease during the present epidemic.

The work is to be in atlas form, similar to Fox's Photographic Atlas of Skin Diseases, published by the same house. A strong feature of the work will be its illustrations, reproduced from recent photographs, the major portion of which will be so colored as to give a very faithful representation of typical cases of variola in the successive stages of the disease, also unusual phases of variola, vaccinia, varicella, and diseases with which smallpox is liable to be confounded. These illustrations number thirty-seven, and will be grouped into ten colored plates, 9 1-2 by 10 1-2 inches, and six black and white photographic plates.

The names of Dr. Fox and his associates assure the excellence of the work, in which will be described the symptoms, course of the disease, characteristic points of diagnosis, and most approved methods of treatment.

The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF MEDICINE AND SURGERY

VOL. XI. TORONTO, MAY, 1902. NO. 5.

Original Contributions.

EXPERIMENTS IN CLIMATOLOGY—THE CANADIAN SUMMER.*

BY EZRA H. STAFFORD, M.D.

THE summer of the southern hemisphere is colder than that of the northern. In the development of the meteorological theory which bears his name, Croll in his work on "Climate and Cosmology" incidentally brings out this fact.

"It is well known," he says, speaking of the temperature at the Equator, "that, notwithstanding the nearness of the sun in January, the influence of the present distribution of land and water is sufficient to make the mean temperature of the whole earth, or, what is the same, the mean temperature of the air over the surface of the earth, higher in July than in January.

"The reason of this is obvious. Nearly all the land is in the northern hemisphere, while the southern hemisphere is for the most part water. The surface of the northern or land hemisphere becomes heated in summer and cooled in winter to a far greater extent than the surface of the southern or water hemisphere. Consequently, when we add the July or midsummer temperature of the northern to the July temperature of the southern hemisphere, we must get a higher number than when we add the January or midwinter temperature of the former to the January temperature of the latter. The tendency of the present distribution of land and water, when our northern winter occurs in perihelion, is to counteract the effect of eccentricity."

The popular notion that stations in the same latitude have approximately the same climate, and that it becomes progressively colder as the polar regions are approached is thus only correct in

* Written specially for THE CANADIAN JOURNAL OF MEDICINE AND SURGERY.

the roughest sense. In North America the continental temperature in some parts of the temperate zone is actually higher during the summer than it is in the torrid zone. Contrasts as unexpected may be observed in passing from east to west, when striking variations of temperature will also be observed at points equally distant from the Equator. Christiania, Stockholm and St. Petersburg are at about the same latitude; but Bergen, which is further north, has a warmer climate; and Reykjavic in Iceland, which is still further north, has been inhabited for a thousand years. Coming to the western hemisphere, however, the scale turns the other way, and it will be found that the three European capitals mentioned are at a latitude which in America has not as yet been deemed suitable for general habitation : points represented by Greenland, Baffinland, the northern waters of Hudson Bay, Great Slave Lake, Alaska, and Behring Sea. Montreal, on the other hand, which has a severe, cold winter climate similar to that of Christiania and St. Petersburg, is at about the same latitude as Florence, Italy, fifteen degrees to the south. Yet Montreal is not so far north as Victoria, British Columbia, with its balmy, south of England winter.

When to these climatic discrepancies is added the fact that the annual temperature in any region forms only one of the many minutiæ of the climate as a whole, and that there are other factors of equal importance which have no connection whatever with the latitude, it will be readily seen that the general rules received heretofore are chiefly of importance by reason of their numberless exceptions, and that to gain a correct notion of the climate of a continent each separate region must be individually and independently studied.

Medical climatology takes into consideration all the phenomena of cosmic force which are manifested in each locality, and views them in relation to their influence upon the life and health of the race. These have been found to be of the most complex and delicate character. Continental position in relation to mountain ranges, altitude, marine position in relation to ocean currents, the presence of large bodies of water in the interior, prevailing winds, atmospheric humidity and foreign matter floating in the air, duration of sunlight and presence of electricity, the quality of the soil in its infinite varieties and the nature of the exhalations from it, vegetation and radiation, the frequency and violence of seismic motion, and even stellar influences combine together to form the meteorological *tout ensemble* which in every region goes loosely by the name of climate.

The foregoing, however, are but the contrasts noticed at the same latitude and at the same time. It is not necessary to enter in this place into a discussion of the prodigious changes in climate which have taken place on the continent at periods long anterior

to the dawn of human history—changes which may be indicated by a tropical climate, flora and fauna in Greenland, or a heaped-up ice sheet enduring for countless years where Montreal and Toronto, Boston and Chicago now stand. The recurrence of another Ice Age, when the vast glaciers will again dredge slowly southward, with low thunder grinding and powdering before them like dust the cities of the present; or another northward extension of warmth benign, when the regions of the pole will again be invaded by the flowers and the singing birds of the spicy south, alike concern no living man; or, for that matter, even the human species, which will undoubtedly have run and finished its splendid, but comparatively brief, career before the repetition of either phenomenon.

At the present time the climate of the continent is characterized by a winter of severe cold, except in the southern portion; and a summer of intense heat except in the northern. By alternately shifting one's position five hundred miles in each direction from a given point in the central region it would be possible at two points a thousand miles apart for one to escape in turn both extremes of temperature. The birds of passage were the first observers of climatology, and the first to avail themselves of its variations. The conveniences of civilization have made the practice possible for those who do not enjoy the same natural facilities for easy and rapid locomotion.

This division of the continent according to climate closely coincides with its political division. During the winter every part of Canada is cold but the Pacific coast. During the summer, generally speaking, every part of the United States is hot to the point of discomfort except the mountains, sea border and Great Lakes. The term discomfort, as used here, ranges in its effects all the way from impaired energy to heat stroke. The first may be said to be universal during the hot months; while the extreme effect is only common at certain times and in certain places, such as the cities. Frequent cases of acute insanity also follow every hot wave.

The manifold advantages, therefore, of the north, as a resort during the summer requires no experiment; and applies as forcibly to the larger continent which contains Europe and Asia as it does to North America. The possible number of distinct meteorological combinations appears, indeed, to be more limited than one would expect, for in the main the climatic features of both the Old and New World are identical, the only difference being in the manner of their distribution. The Steppes of Russia and the icefields of Siberia are not wanting in Canada. The charm of Scotland and the bold scenery of Norway may be found accurately reproduced in Nova Scotia and Newfoundland. Indeed, the resemblance in the case of the last two is so striking that, upon being shown by the late Dr. Harvey a large number of views of

both countries indiscriminately, I found it quite impossible to distinguish the Newfoundland from the Norwegian.

The places of ostensible resort in Canada are already numerous, and are confined for the most part to the lake region and the Maritime Provinces, with an intermediate region along the course of the St. Lawrence and its tributaries. Attractive scenery and convenient access probably led to their first choice, and custom and hotel accommodation did the rest. It is usual to speak of the Canadian summer resorts with a certain degree of complaisance; but as a matter of fact the entire country is a vast summer resort. Though unknown to fame, the farm in the backwoods, the primeval forest, and the river at the frontier are resorts of inestimable value. The advertised resort indicates a social usage, and gives promise of a definite menu; but from the standpoint of physiological therapeutics has no other significance. To appreciate the Canadian summer, taken simply as a summer and regardless of resorts and conventions, it is necessary to familiarize one's self with the same season as it exists in the southern portion of the continent.

In the cities of the plains the temperature in July rises for many days in succession to 105 and over. During a summer's residence in Nebraska I painfully remember this period of protracted heat, which was so great that the brick-paved streets exploded with loud detonations, casting the bricks in all directions. There was no breeze, and fortunately, for any movement of the air only served to put in motion the suffocating alkaline dust that whitened on the banks of Salt Creek or was strewn in hot powder on the shores of Salt Lake. A little shower was gratefully designated by the newspapers as a million dollar rain. Too listless to move, and with a sense of fulness in the head, I think I felt more sympathy then for the ten thousand as they marched through the deserts of Persia than I ever did when I was construing the Anabasis. As far as I could see lay the endless prairies, parching in the fiery heat, with no rising hill or leafy tree or limpid rivulet; but only the brazen sun above, the baking mud beneath, and the ocean more than a thousand miles away.

In the large cities I have found the conditions quite as distressing. New Orleans is more endurable during the summer than Chicago, and San Francisco is more pleasant than either; but in Boston the humidity of the air renders the heat almost insupportable; while the contiguous resorts on the coast confer in the long run no more permanent ease than does the momentary application of cold to a fresh burn. In New York the heat seems to bring with it an even greater depth of despair. This is partially due to the fact that, in the matter of space, this city is architecturally constructed upon the frugal plan of a chiffoniere. It is nothing more or less than a huge piece of furniture in brick and iron; and

serves to indicate the monstrous lengths to which the obsession of American utilitarianism can go. Baltimore and Washington I also found undesirable, and here malarial poison is added to the heat. The local doctrine that seven years residence confers immunity is incorrect; but even if it were true, seven years is too long to wait. In July the Washington shopkeepers, to attract trade, fry eggs by breaking the shell and allowing the contents to fall upon the heated asphalt of Pennsylvania Avenue.

The addition of further evidence is hardly necessary to indicate the relative significance of the Canadian summer, and how imperative a need there is in the middle and southern portion of the continent, over and above the summer resorts which they already have in the mountains and on the coast, for a place of refuge during the hot months. At this time every part of the north represents, not only physical comfort in its widest sense to everyone who journeys thither, but renewed health and refreshed energies, and to many even life.

The curative action of climate may be classed with the "alteratives" of the pharmaceutist; being especially efficacious in cases of lowered vitality, impaired resistance, degenerative or chronic disease. The rejuvenescence often accomplished by the climate cure is not transient or volatile, but far reaching, stable, permanent; and while the lives of many have no doubt been prolonged by a journey to the south during the rigors of the northern winter, it may with equal truth be said that the health of many may be renewed by a sojourn in the north during the summer. Both the extreme heat and extreme cold are badly borne by those who are enfeebled by disease; and during periods of either extreme the death-rate rises to a noticeable extent.

The benefit of a summer spent in the pure and brilliant air of the north would be well marked also in cases of neurasthenia, melancholia, nervous prostration, and kindred maladies of the nervous system, as well as in early phthisis and affections of a bronchial or pulmonary nature. With equal advantage the same might be advised for cases of digestive derangement and cardiac or renal trouble; by strengthening the constitution as a whole—provision being, of course, made in the first class of cases for the exhibition of suitable medicaments by way of reinforcing the other favorable influences in overcoming the functional weakness; and the utmost caution being taken, in the second class of cases, to avoid the violent muscular exertion of those outdoor sports for which there are so many opportunities and so many temptations in Canada during the summer.

That numbers so comparatively small from the United States should avail themselves annually of these incalculable advantages will seem quite inexplicable until it is remembered that the distinguishing climatic aspects of Canada have not received the care-

ful study which they merit; and that they have not been brought sufficiently before the notice of the medical profession of the outside world, in whose discretion it largely lies to advise the place and manner in which a large proportion of the people should spend each summer.

This negligence in furnishing scientific climatic data finds a poor compensation in the effusive babble of those uninformed individuals who are led by their incredible patriotism to resent any distant reference to "The Lady of the Snows," and to insist, quite as unreasonably, upon the untiring iteration of "The Lady of the Sunshine." As a matter of fact the whole lady business is mere moonshine; and the attention which it has attracted smacks humorously of the provincial. Davos also has snow and a cold winter, but no attempt has ever been made in Switzerland to disclaim the indisputable fact.

So in Canada, it is the actual climatic conditions existing there that are of importance to the medical profession, and these details alone. But the scantiness and the unreliability of the information obtainable is notorious, and has even been complained of by scientific writers.

"It is extremely difficult," Dr. S. E. Solly remarks, in his late work on Mental Climatology, "to speak with definiteness and justice of the claims of Canada as to its health resorts, because, even in regard to general climatic characteristics, the area to be covered is so great, and accurate information is so scanty and difficult to obtain. The local variations, too, are many, and would require close investigation before their exact merits and demerits from this point of view could be decided upon."

At present latitude 50 marks the northern boundary of social and commercial Canada. Beyond this lies *terra incognita*, in the mid portion of which a mighty sea, almost as large as the Mediterranean, rolls unseen its salty waves. Primeval forests clothe vast stretches of wilderness, uninvaded as yet by civilization. Countless lakes and innumerable rivers, unnamed, unfamed and unclaimed, murmur amid the hills. I have been informed by missionaries and officers of the Hudson's Bay Company that a residence in these wild regions is regarded by those who have enjoyed the experience as a panacea for almost all the ills that flesh is heir to; and the Rev. Thomas Hurlburt, who lived for many years on the coast of Hudson Bay, has spoken in the highest terms of the health-giving properties of the wilderness.

As one approaches the Canadian polar regions, the summer season becomes synonymous with perpetual day and undying sunshine. The therapeutic effect of solar light cannot be overestimated in the treatment of disease. It is of paramount importance. Not only does the direct sunlight render the atmosphere

aseptic, but it has also an overwhelming physical and mental effect upon the individual.

In a paper bearing upon the physical effects of Arctic cold, darkness and light, Dr. F. A. Cook, surgeon of the first Peary expedition to northern Greenland, calls attention to this fact. "I wish," he says, "to emphasize the fact that it is not the low temperature of the Arctic from which explorers suffer. It is the long and intense darkness which always induces a temporary depression of vital forces. At about Christmas, which is the polar midnight, we found ourselves lethargic and more or less overcome by spells of melancholy. Our skins were jaundiced and pale, we were incapable of prolonged exercise, we lost vigor and ambition and interest in our surroundings. Our condition was a mixture of vague elements of chlorosis and the profound debility of anemia. With the return of the sun came a rapid transformation. The jaundice, the pallor and muscular debility quickly disappeared. Periods of profound vasomotor disturbance and of mental and nervous excitement followed each other like eddies in a spring freshet. Before the sun had reached its summer altitude our bodies were quivering with animal passions. Our skins, which were nearly bloodless, were now flushed. The eyes, which were dry, now sparkled; the saliva at times fairly trickled from our lips. Indeed, the return of the sun started life into a renewed rivalry of bursting springs. I am confident that many forms of nervous, gastric and pulmonary diseases would be greatly benefited by these conditions. Those who have early exhausted the sparks of youthful enthusiasm, who seek the elusive elixir of life, who long for the fugitive balm of perpetual youth, would find a new interest."

Dr. John N. E. Brown, the Territorial Secretary of the Yukon, writing from Dawson City, has from time to time during the last three years spoken to exactly the same effect regarding his own experience; and I do not think it too much to say that as soon as facilities are afforded, the summer of the far North will be utilized for the therapeutic effect of its polar climate during the summer, just as points far more remote and of less certain efficacy are sought after now. Indeed, the advances made in Canada during the last few years in the matter of transportation give promise, perhaps, of what may be expected in the future, when the country of the fur trader and the Esquimaux may also become accessible to the general public. Industrial considerations will no doubt be the impelling motive in all such enterprises; as it has been already in the settlement of the Yukon Territory; but the advantage will be none the less substantial to the health-seeker and tourist.

Meanwhile we have to do with the narrow strip of land which lies south of latitude 50, and reaches from the Atlantic to the Pacific. In this tract are distributed every variety of climate to be found in the temperate zone. It is traversed from Halifax to

Vancouver by the Canadian Pacific Railway, and a trip from ocean to ocean along this great national highway forms one of the most instructive and delightful itineraries for the summer which could well be imagined. The splendor of the scenery in its rapid transitions from forest to plain, and simple pastoral to the terrible grandeur of the mountains, awes while it uplifts. In this journey one is brought face to face with some of the most sublime monuments of nature.

The climatic influences will also be found to be specially favorable, and the resort at Banff Hot Springs can compare advantageously with anything to be found elsewhere in America or Europe. The surrounding scenery is inspiring in the extreme, the climate is Alpine, and the atmosphere ambrosial. The coast and the mountains of British Columbia offer a great diversity of climate; and it is in every way desirable that the various conditions existing there should receive the thorough and scientific study which the medical profession demand. Too much weight altogether has been given in the past to the valueless opinions and impressions of casual tourists, which, while complimentary and no doubt gratifying, carry no authority in a matter where the careful conclusions of the specialist are required.

For example, this province is in one of the most favorable positions on the continent for the treatment of tuberculosis by a residence in the forest, a plan of climatic treatment which has met with such admirable results in the Black Forest country of Germany. The terebinthinate quality of the air is well marked in British Columbia, and the variations of temperature are neither sudden nor great. Space will not, however, allow for speculations by the way. It is sufficient to point out that the matter has not received adequate attention.

The table lands and the plains of the interior also offer many inducements to the health-seeker. When practising medicine in Calgary in 1889, the writer was struck with the stimulant action of the atmosphere. The air is so clear at this point, and the peaks of the Rockies may be seen with such distinctness, that many new comers can scarcely believe, against the apparent evidence of their senses, the statement that the mountains are eighty miles distant; and are irresistibly inclined to set out on foot during the afternoon for a ramble among the ravines which are so distinctly visible. For many, a life on the table lands or on the plains is preferable to a residence in the mountains, where the altitude is often great, the air rarer, and the exertion of getting about very fatiguing. Brandon and Winnipeg have a severe winter, it is true, and in the summer occasional periods of extreme, though dry heat. Yet the effect of a residence in Winnipeg, continued throughout the year, I found to be eminently conducive to health; and a large number of cases came under my notice where the indi-

vidual had been in great dread of phthisis, but after a year or so in the pure, dry air of the prairies had gained such strength of constitution as to make all dread of tuberculosis groundless.

The Lake of the Woods district, midway between the plains and the Great Lakes, is another charming spot, and theoretically ought to be, and, I am informed, is a most healthy locality. My own experience having been but for a few days, I can only speak personally of the scenery, which has a certain wild beauty the like of which I have never seen outside of Canada. Lake Superior, Parry Sound, the Muskoka district, and the Upper Ottawa need no description here, nor, indeed, the voyage through the Great Lakes, in the progress of which one passes some of the most picturesque scenery in America. The air in these regions is pure, the amount of sunlight large. The temperature is seldom high enough to cause discomfort; and not only is one nearer to the local centres of civilization at Montreal or Toronto, but he possesses many of the conveniences of civilization which are not so readily obtained in the more remote districts. Dr. E. H. Adams has written extensively upon Muskoka, and by his valuable researches has made himself an authority upon this important subject.

Passing eastward, the features of a continental climate are slowly merged in those of a marine. The celebrated journey down the historic St. Lawrence and up the Saguenay is of as much interest to the scholar and pleasure-seeker as it is to the medical climatologist. The health resorts of the lower St. Lawrence are numerous. There is not, perhaps, the same proportion of sunlight, there is more moisture in the air, occasional fogs, and a somewhat lower temperature; but for all this one is compensated by the sea bathing which, though a trifle cold, is excellent. The scenery along the river is bold, inspiring, beautiful.

New Brunswick, Nova Scotia, Prince Edward Island and Cape Breton possess a marine climate. The moisture may be found somewhat trying by a few who are susceptible to the damp, but the majority will be able to find an acceptable residence. The summer season here is otherwise almost perfect, and one great advantage of the Maritime Provinces is their easy reach from Boston and New York. From Canada the journey may be made by the Intercolonial Railway, which traverses a part of the country rich in scenic beauty.

It would be difficult to actually define the craving for a marine climate which periodically takes possession of nearly every person. Sailors have told me that the sea "calls them." They can give no more lucid explanation than that of what they experience. It is an overmastering need for the sea, a hunger for the salt air that cannot be stilled. Whether it is the smell of decaying kelp, or the dinner of shellfish and cod, or the purity of the wind, or the halogen elements all let loose in the whirling air, or the

bath in the sandy cove, the flooding tide and the sounds among the ships,—whatever the mystery and the magic of it all may be, it is certainly imperative in its promptings and substantial in its results. And it is this instinctive necessity of race which renders the maritime provinces, and especially Newfoundland, of the utmost importance in any discussion upon the medical climatology of North America.

Newfoundland offers all that can be desired in a summer resort. The richness of its historical past, the quaintness and sterling worth of its people, its primitive customs, the rugged grandeur of its coast-line and the wild beauty of its interior, will prove an unceasing source of charm and interest, as long as men continue to be moved by the imagination or to be conscious of a sense of beauty. The amusements are varied, and present any degree of excitement which the individual may happen to crave. Newfoundland is not a country of verandahs and shade trees, and one is not there expected to spend his time in a rocking chair, listlessly gazing at the thermometer, clad in the lightest possible suit of pajamas, and guzzling iced drinks. Whatever the tastes of the visitor may be, he will leave the island at the end of his sojourn with hardened muscles, strong eyes, sound lungs, efficient circulation, the appetite of an out-harbor man, and the heavy slumbers of a child.

Newfoundland has a cold marine climate which at any season of the year proves wholesome and stimulating to the robust, and during the summer, bracing and refreshing to even those who are in feeble health. Until very recently, consumption was almost unknown in the island. The "salt in the air" produces a marked tonic effect. The winter is not as severe or as prolonged as it is supposed to be. By the beginning of April spring is well under way; and the bland sun is already calling forth the tender green in lawn and forest. The summer is warm, but not relaxing.

Until recently the journey to Newfoundland was a long and fatiguing one; but at present it may be made with the utmost despatch and comfort. From Canada one travels by the Intercolonial or Canadian Pacific to Sydney, Cape Breton, and from this point a sea voyage of only six hours' duration lands the traveller at Port-aux-Basques on the western coast of Newfoundland, from which point he can travel the whole length of the island by the Newfoundland Railway, which is a splendid feat of engineering construction, and is well equipped in every detail. The route forms a grand curve; at first striking the rugged western coast, and then turning inland and traversing the heart of the island. Here one passes vast tracts of hitherto unexplored country, and at last, emerging upon salt water again, Trinity Bay, Bonavista and Conception Bay are sighted, and the wonderful journey terminates at the city of St. Johns. Connected with the railway is

a fleet of ships which touches at nearly every fiord and cove along the coast, and runs northward during the summer to the lonely coasts of Labrador. A month of unflagging interest could be spent in circumnavigating the island in this way.

Then for the sportsman and the victim of the "strenuous life" there is the camp fire in the primeval forest, the trout in the unvexed stream, the deer upon the wooded hill, the wild ducks rising from the rushy lake. For him of less sanguinary tastes who loves Homeric simplicity, there are the pastimes of the vikings, refreshing contact with simple folk and the drama of human nature untainted by artificiality. There is the rough comfort of the fisherman's cabin in the village among the rocks, the screaming of the gulls, the roar of the black, tumbling waves, and the rocking craft putting to sea in the gray of the early morning. But for him whose tastes are urban there is that hospitable colonial city, gray with age, built among the towering cliffs. Here lies St. Johns with its churches, schools, clubs and mansions. Not unlike Quebec at first view; and much that cities have, it has: wealth, luxury, splendor, and an old aristocracy. Here it looms in the purple mists of evening, while about it float four hundred years of romance. But the demons are stilled on Bacalieu, the flag of the pirate is seen no more, and the story of the Prisoners of Portingale is yet untold.

VAGINAL SECTION—EXPLORATORY AND OPERATIVE.*

BY T. SHAW WEBSTER, M.B., M.D. C.M., TORONTO.

This paper is intended to bring before your notice for discussion two quite different surgical operations for the relief of pelvic diseases exterior to the uterus: (1) The opening of the abdomen through the cul-de-sac of Douglas; (2) an extraperitoneal method, dissection from the vagina upward between the folds of the broad ligament to the seat of the disease.

In discussing these operations, a comparison between the abdominal and the vaginal routes to the pelvic organs is forced upon us, and I am convinced that as we become better diagnosticians of gynecological ailments, and as we develop the *tactus eruditus,* we shall have a greater preference for opening from below rather than above the pelvic organs.

The opening of the cul-de-sac, the method which has been associated with the name of Dr. W. R. Pryor, is safe and simple, and enables the surgeon, after palpation and inspection of the contents of the pelvic cavity, to operate in a large proportion of cases for whatever abnormal conditions may be found.

In those rare cases in which a vaginal opening must be supplemented by an abdominal one, it provides thorough drainage from that portion of the peritoneum to which all fluids therein contained gravitate through a tract that does not absorb infection. It also gives opportunities for conservative surgery upon pus-tubes, cystic ovaries, etc., unattempted yet by the abdominal route.

For two days before operation the vagina should be subjected to a sterilizing process. At the same time the patient is prepared for abdominal section, so that it can be done immediately should it be found necessary owing to the complex nature of the lesions. In such a case it is preferable to continue the removal of the diseased organs by the vaginal route, with the assistance of one hand or part of it, passed through the abdominal incision rather than to lift viscera from an infected pelvis through a normal abdomen and an incision easily made septic.

After the patient is anesthetized, the external genitals and vagina receive a final cleansing, and the endometrium is gone over with a dull curette, and with a sharp one afterwards, if indications are present necessitating the use of it. The cavity of the uterus is now irrigated with warm salt solution, and mopped out with sterilized gauze, and the vagina is washed with warm bichloride

* Read before the Ontario Medical Association, June, 1901.

solution (1-5000) and wiped dry. The double volsella is fastened into both lips of the cervix and it is drawn downward and forward.

The mucous membrane of the vagina, half an inch posterior to its reflection from the cervix, is picked up with long forceps and a horizontal incision an inch long made with scissors, cutting through the mucous membrane only, and not entering the peritoneal cavity. While making downward traction upon the cervix the index finger is pushed upward through the cellular tissue until the peritoneum is reached. This fact is readily recognized by the presence of a little fluid fluctuating in the cul-de-sac, or by the smooth anterior and posterior surfaces of the cul-de-sac gliding over each other when the examining finger is pressed forward and moved up and down. The peritoneum is opened by catching a fold of it with forceps, and making a small cut with scissors, as in laparotomy. This opening is dilated with the fingers as wide as may be necessary. Should the tissues resist the tearing, the scissors may be used with care to enlarge the opening.

Adhesions can now be broken up, the pelvic organs palpated and drawn through the incision into the vagina. The uterus, being held down with the forceps in the cervix, the fingers are hooked over the tube or ovary to be removed. While these are drawn gently downward and backward the cervix is pushed upward and forward. These movements combined retrovert the uterus so that it is turned nearly upside down, and allows the adnexa to be drawn into the vagina.

The insertion of Howard Kelly's broad retractors will now give ample opportunity for inspection and manipulation. Conservative operations, such as opening and draining tubes, incising and evacuating cysts, enucleating fibroids, etc., can now be done, and radical removal effected if advisable. The intestines are kept out of the pelvic cavity with gauze pads.

This is the method I have followed usually. Dr. Pryor places the patient in the Trendelenburg position and uses an anterior retractor shaped like a trowel, with which he forces the uterus upward and forward out of the way, and with a short Jackson's speculum retracts the perineum. After the cul-de-sac and vagina are mopped clean, and the pads removed, a loose plug of iodoform gauze is inserted just within the incision to prevent the protrusion of the intestines and to provide drainage. The uterus is now pushed back into position and the vagina packed loosely with iodoform gauze. The patient is catheterized for three days. On the third day the gauze is removed without irrigation. The peritoneum will usually be found closed, a slit remaining in the vaginal mucous membrane. The vagina is repacked every three days until healed. Many patients may be allowed out of bed in a week, and return home in ten to fourteen days, when the opening is usually closed entirely.

Abdominal section is frequently followed by stitch abscess, hernia, and troublesome adhesions, and always has an ugly scar to fret nervous patients. The vaginal method is followed by no untoward sequelæ.

The Extraperitoneal Method of Relieving Pelvic Inflammations.

When an infecting organism enters a Fallopian tube it usually sets up a reactionary inflammation, which tends to close the fimbriated end and thicken the tube. In some cases it invades the intraligamentary cellular tissue, and the peritoneum, especially that part forming the folds of the broad ligament, becomes hypertrophied. In most cases pus accumulates in the tube, and as it is distended it tends to separate the folds of the ligament, so that a considerable space is found between them, and the tube may eventually rupture into the ligament. Not infrequently tubal pregnancy works outward into the broad ligament, and ruptures into it. In cases where these pathological processes occur, and we are called upon to operate either before or after rupture, an extraperitoneal dissection gives the best results. Since 1896 I have practised the following method in such cases:

The patient is prepared for vaginal, and also for abdominal section, as in the cul-de-sac operation. The uterine artery is located, and the mucous membrane beneath it is opened with forceps and scissors, and a dissection made with the fingers through the cellular tissue toward the seat of disease. If one keeps close to the uterine artery there is little danger of puncturing the folds of the broad ligament and opening the abdominal cavity.

In this way I have exposed the under surface of pus-tubes and an ectopic gestation. A small electric light, such as is used with the male urethroscope, can be inserted, and a visual inspection made, but "finger sight" is all that is needed to recognize the under surface of the tube.

When the tube is reached, an assistant holds the tumor down by pressure from above, and the index finger is inserted so that the tip touches the tube. Along this finger as a guide a long, sharp-pointed scissors is passed to the tube, and by gentle pressure is forced into it. When the tube is punctured, that fact is recognized by sudden diminished resistance. The scissors are opened in the tube and withdrawn, tearing the opening wide enough for drainage.

After the contents have been forced out by pressure upon the lower abdominal wall, and irrigation used if necessary, a gauze packer is introduced and an iodoform gauze drain put in. This is changed as required until the opening is closed from the tubal end. As soon as the patient has recovered from the anesthetic she may be allowed to go about without danger.

I have relieved a tubal pregnancy by this method and sent the patient home in three days. Eight days after she walked half a mile to church; two and a half years after she gave birth to a healthy baby, having had perfect health in the interval.

This extraperitoneal operation differs from "Vaginal Section and Drainage" as practised by Dr. H. A. Kelly and others. Their plan is to force long, sharp-pointed scissors through the vaginal mucous membrane upward in the axis of the pelvis to the focus of inflammation, or centre of the tumor. In doing so, the ureter or rectum may be punctured, or the scissors may transfix the abscess cavity and pass into the abdomen. The plan I have outlined has been practised without mishaps. In ruptured tube cases the finger does all the work after the mucous membrane of the vagina has been opened. Intraligamentary cysts and a ligature abscess after abdominal section can be relieved by this method without danger and with the same rapid convalescence.

Case 1.—Mrs. F. W., Toronto, aged 43. Mother of seven children, the youngest being seven years of age. No miscarriages. Had complained of pelvic pains for about two years, especially on walking a distance.

Examination on May 29th, 1901, showed great tenderness of both sides of the pelvis. Patient gave a history of irregular flowing, never very profuse, with occasional cramping pains lasting about two weeks and beginning about the usual time of the month. As she could not bear the pain of a thorough examination, I returned the next day with an anesthetist, and under chloroform both tubes were found enlarged; the right globular and firm, the left ovoid and fluctuating. Diagnosis of pus-tubes or tubal pregnancy was made, and patient removed to the hospital on June 5th. Two days later the cul-de-sac was opened, and a right ectopic gestation and left pyosalpynx removed. Patient was allowed to get up on the eighth day, and returned home on the tenth, taking a pleasure drive to Mimico and back the same afternoon. No subsequent symptoms of disease. Drs. Clouse and Carveth were associated with me in this case. Specimens presented.

Case 2.—Mrs. McL., aged 35. Had never been ill since childhood. Married in Baltimore, Md., July 12th, 1898. Consultation on August 17th elicited the following facts: No menstruation for six weeks, when an irregular flow began and had continued for about ten days with occasional pains, not severe, but followed by profuse flow. Examination on August 23rd revealed a tumor as large as a hazel-nut; right tube excessively tender; which had increased to the dimensions of a small walnut on September 10th, when she was examined by Dr. W. J. Wilson and the writer. Pain was of a severe cramping character, and brought on attacks of faintness. Tubal pregnancy was suspected, and the

patient removed to the Western Hospital to await developments. She was kept constantly prepared for abdominal and also vaginal section. During the next week she suffered intensely, although morphine was given twice daily, and ate nothing. Temperature continued normal, and the pulse fluctuated with the pains. One week after admission to the hospital she was taken to the operating room, and under anesthesia it was found that the tumor was now as large as a duck's egg, and slight fluctuation could be detected *per vaginam.*

The extraperitoneal dissection described above was begun, and completed in about ten minutes. When the tube was opened, fluid blood, dark colored, and clots came away, with dark pieces of placental tissue. A narrow strip of iodoform gauze was inserted for drainage. The following night she slept ten hours. The next day she was free from pain, and ate light diet heartily. Three days after operation she wrote several letters, and went home in a cab in the evening. I induced her to stay in bed the next day, but after that she was up and about the house, and on the eighth day after operation she walked half a mile to church. The sinus closed in about two weeks. Pregnancy and childbirth two and a half years after gave no reminder of previous illness.

Case 3.—Miss S., aged 28, seamstress. For four years suffered from dysmenorrhea and leucorrhea. Was unable to work about two weeks in each month. Being consulted on September 13th, owing to the chronicity and severity of the symptoms, I advised examination, which discovered a small tumor on left side of uterus, not adherent to it. Entered hospital September 19th, and the following day under chloroform tubo-ovarian cyst was diagnosed and the vagina widely dilated preparatory to operation, which was done on October 2nd. Ten days after she walked home half a mile, and has not been indisposed since. Specimen presented.

Case 4.—Mrs. G., aged 28. Married four years. Suffered from dysmenorrhea before marriage, and became worse after. In July, 1900, she became pregnant for the first time, and suffered from agonizing pain day and night, accompanied by severe vomiting. In November she was greatly emaciated, and a nervous wreck, and Dr. J. Noble, her attendant, after consultation, emptied the uterus, which he describes as an irregular mass, before delivery, and afterwards presenting an enlargement on the right side. Partial relief followed delivery, but she did not regain strength.

Dr. Noble asked me to operate, and she was taken to the hospital on January 17th, 1901. On January 21st she was ready, and under chloroform. A hard tumor attached to the anterior surface of the right cornu could be palpated. The cul-de-sac was

opened and the mass forced backward and downward into view, then seized by tenaculum forceps and removed. It proved to be a fibroid as large as a medium-size orange. The margins of the site of attachment were drawn together by sutures, and the uterus replaced. She had no further discomfort, and gained very rapidly in strength, leaving the hospital in two weeks from day of operation. Specimen presented.

ON SOME MEDICAL FACTS AND USAGES AMONG THE INDIANS AND FRENCH CANADIANS.*

BY W. L. T. ADDISON, B.A., M.B. (Tor.), TORONTO.

In the paper before you this evening, it is not my purpose to attempt to wholly relieve our consciences of the many evils which we, as a race, have introduced among the aborigines of this continent, but rather to place before you some evidence which may in part lessen our seeming responsibility as to the introduction of tuberculosis among the Indians, and also to recite some primitive methods of assisting labor as practised among the French Canadian and halfbreed midwives.

Before the French nation had established its colonies in New France, one of the great tribes of Indians, the Huron nation, occupying that portion of Ontario lying between the Eastern shore of Lake Huron and the Georgian Bay to the Severn River on the west, and Lake Simcoe on the east, had a most peculiar way of disposing of their dead. They, from time to time, as death came amongst them, laid away their dead upon a platform scaffold, much the same as, indeed, have done the Crees in more modern times. At periods of eight or ten years they, making great feasts, and ceremonies, gathered together the bones of their friends and buried them in a common grave, to which the archeologist gives the name ossuary.

The mode of arranging the bones in these ossuaries was most frequently to lay the crania upon the floor of the pit, and afterwards carry the femores tibiæ, ulnæ and radiæ, and lay them in parallel bundles; after this, the other bones were apparently thrown in promiscuously. The fragments of one little skull were found in an ossuary, and in this skull were placed the ulnæ and radiæ, together with some smaller bones of the infant, making a most pathetic protest on the part of some gentler-hearted Indian mother against rude hands being placed on what remained to her of her child.

*Read before the Toronto Medical Society.

Among the very first of the French explorers of this portion of Ontario were the Jesuit missionaries, and among this less savage Indian race, for they were in the main agriculturists and fishermen, the mission of peace found ready greeting, and the entire nation became good sons and daughters of the Roman Church, quickly adapting themselves to their friends' leaders, and to them all-wise counsellors.

It is needless to say that under the genius of the Jesuit teaching, and before the ceaseless zeal the pagan rites vanished, so that the writers who were able to give us any account of these burial feasts, were but those who for the first time made known the existence of the white man to the sons of the forest.

It was my good fortune to, in the company of Mr. Thomas Redfern and Harry Mayor, of Painswich, and Mr. A. F. Hunter, M.A., of Barrie, open an ossuary near Big Bay Point, in the County of Simcoe, and among the many skulls and bones which we removed, to find two series of vertebræ in which in the one case the bodies of five upper dorsal vertebræ had been absorbed and reorganized, and in the second case four lower dorsal vertebræ to have been absorbed and recognized.

In this same bone-pit were found some much charred human bones which for the time suggested to the minds of those present the possibility of torture, of some human sacrifice, or mayhap even some cannibal feast.

And what was stranger still were some trephined crania, which now are on exhibition in the archeological museum in the Normal School building in Toronto.

The vertebræ I did not examine for tubercle, for with all the staying power of the bacillus tuberculosis, I hardly thought him equal to surviving some two and a-half centuries, but the massing of the bony mass, which took the places of the bodies of the vertebræ, together with the curve of the series of the spinous processes, lead me to recognize two typical cases of caries of the spine in which recovery had taken place. Such, indeed, was my diagnosis and that of Dr. J. L. Easton, who was reading with me at that time.

That these two cases of Potts' disease should have been found in this prehistoric grave, and that there should have been two such cases in the one community, would tend to show that there was not only tuberculosis before the arrival of the European, but that it was far from uncommon, and it is well worthy of note that these cases occurred in a nation which were not nomadic, but had permanent places of abode, there being thus a tendency to the accumulation of infective material.

Some three years later, while talking to David Menomenee, a Protestant missionary and a very decent, well-educated chap, he

told me of the usages of the Ojibeways, as related to him by his father, whom I am told was one of the latest surviving pagan Indians on the Parry Island reserve. He states that in the "wasting sickness"—that is the Indians' name for consumption—the hollow thorax was attributed to the eating away of the inner portions of the thorax by little worms, so that it fell in for lack of support, and that in case of a sick person dying of the "wasting sickness," it was customary to burn the body, so that the little worms might not escape and attack other and healthy people.

This, I fully appreciate, sounds much like a garbled edition of our modern germ theory, and yet under the circumstances I am much given to regarding it as *bona fide*. It is, of course, to be noted that the cases of tuberculosis cited above were undoubtedly because of the mode of burial (Huronian), while the legend is Algonquin. The Hurons and the Algonquins, however, were close neighbors, and for the most part were at peace, exchanging courtesies and entertaining peace embassies.

These nations were, moreover, in their pristine usages keen students of hygiene, selecting for camping places a situation in the vicinity of a spring of running water, and placing their camp upon a slope draining away from their water source.

That there should be the instructive and studied observation of hygiene, that there should have been such a legend of such a usage as to burn those dying of the wasting disease, and that there should have been found in an ossuary, which is pre-European, tubercular vertebræ and also partially burned human bones, is too marked a series of coincidences to let pass unnoticed, and I am quite confident that should we disclaim being the introducers of the bacillus tuberculosis to this continent, we but state that which is true and just. If the above conditions, as related, be *bona fide,* surely indeed Solomon was right, even of our germ theory, when he wrote, "There is nothing new under the sun."

While in the vicinity of the Quebeckenong Reserve, the Indian midwives, if unable to manage the labors occurring in the Indian village, used to seek my assistance, and therein I obtained an opportunity to observe their method of conducting a case of labor. In all their cases of labor they expected considerable hemorrhage, and if it were but light or absent the old midwives suffered much worry, so that I not infrequently was called to a case because, as the Indians say, "we see no ting com," despite the fact that both baby and placenta had duly and safely arrived. Before and during labor they administer a tea made from a hot and peppery plant of the cruciferæ, found in the marshes, but which is further botanically unknown to me. During labor the woman is supported in a semi-reclining position by pillows, these and the blanket being placed on a bed of balsam boughs, the buttocks and genitals, how-

ever, extending beyond the blanket. Beneath the genitals and buttocks is made a little bed of a fine grass gathered from the highlands of the brule, and over this grass is spread fine branches of the white cedar.

Thus, indeed, do the children of nature supply themselves with a bed of aseptic grass, which the winds have blown clean, and over it the antiseptic cedar. This grass the midwife removes from time to time, as it becomes saturated with amniotic fluid and blood. To help the expulsion of the placenta the midwife exerts tension on the cord, while the patient with might and main attempts to blow into an empty bottle.

Now, Mr. President, I shall pass on to relate some of the peculiar customs I found among the French Canadian women. To the French Canadian woman the bearing of children is an easy function. The smaller houses and less indoor work, the out-of-door life, a naturally liberal pelvis, an elastic peritoneum and elastic pelvic ligaments, early pregnancies, together with the fact that they come of stock given to much parturition, all give to the Canadienne a facility of labor to which her Anglo-Saxon sister is a stranger. They are withal, despite the hereditary tendency to much reproduction, rather shamefaced over it. It is not uncommon to hear a mother say (and not an old one either): "You not mind ma fille, she make shame she have babe," and that despite the condition of pregnancy being wholly proper.

One little French woman whom I attended in two labors would insist in having her baby born while she was in a kneeling position at the side of her bed. Not being bound unduly to the usages of the fathers in medicine, and being told she had had her other babies that way, I let her have it out in her own way, hoping thereby to see some new thing. The case went well. I caught the child as it was born, then let the midwife hold it while I tied the cord and severed it, and then let my patient get back to bed.

Such a procedure gives the patient undoubtedly all the advantages of the forces of gravity upon the child, and converts the minus pressure of gravity of the recumbent position to a plus pressure upon the vulva and the pelvic resistance in the kneeling posture.

Another custom not uncommon is for the woman in labor to kneel in front of her neighbor (who is almost invariably present), and placing the fundus of her uterus against her neighbor's knees, grasp her neighbor about the waist and pull, and thus she not only obtains support for the abdominal walls, but is able to exert the strength of her arms in expressing her own child.

I have heard of, but not seen, a procedure in which the woman lies across the knees of her midwife, but I make no doubt that I would in such a case be much moved to severely apply a shingle to both patient and midwife.

In writing insurance among the French Canadians, a most appalling death-rate is shown of mothers, following 10 days to 2 or 3 weeks after childbirth, the cause being attributed to "catching cold," and I found, when first commencing practice among these amiable people, it necessary to very much limit the freedom of the midwives in their procedure, not that they were mechanically so at fault, as they were accustomed to take liberties with the placenta while it was still lying in the uterus and vagina, and while their hands were filthy.

From being a village in which puerperal fever was common and almost rife, it was happily transformed into one in which the midwives had to have new dishes, clean dishes and clean hands, and had to keep even their clean hands from any internal meddlesomeness, and the sequence was the safe labor which comes thereby alone.

Now, before closing this paper, I am sure it has occurred to you that I should have exhibited the tubercular specimens with this paper. I fear I am like a certain other physician and teller of tales in this city, who, when pressed for his specimens, had always lost them. In moving from Barrie to Byng Inlet I lost them, but am fortunately in a position to refer you to the following people for reference (that is, not to myself, but to the specimens): Dr. J. L. Easton, Capt. D. H. MacLaren, Barrie; A. F. Hunter, M.A., Barrie (a member of the anthropological committee in Canada of the British Association), and to Messrs. Harry Mayor and Thos. Redfern, of Painswich, Ontario.

Thanking you for your kind and courteous hearing, I submit my paper to you.

513 Markham Street.

Public Health and Hygiene.

. . . IN CHARGE OF . . .

J. J. CASSIDY, M.D., AND E. H. ADAMS, M.D.

REPORT OF SECOND QUARTERLY MEETING OF THE PROVINCIAL BOARD OF HEALTH OF ONTARIO.

THE second quarterly meeting of the Provincial Board of Health of Ontario convened in Dr. Bryce's office at 11 a.m., April 11th. The following members attended: Dr. Vaux, Chairman; Dr. Bryce, Secretary; Dr. Cassidy, Dr. Oldright, Dr. Kitchen, Dr. McCullough. After some correspondence had been read, Dr. Oldright reported a case of smallpox, a student of Toronto University, who had been sent to the Smallpox Hospital, Toronto. The patient had recovered, the attack being a mild one.

The Secretary reported a complaint made by persons in Dundalk who were annoyed by the discharge of factory refuse running into an open drain. The Secretary had replied to the letter. The question of the inspection of barber shops was spoken of, and the committee on epidemics was instructed to report on this matter, at the next quarterly meeting.

Dr. Bryce, in discussing the precautions taken against the spread of smallpox, said that sixty lumbering firms had already complied with the regulations of the department regarding the precautions to be taken in lumber camps, and their assistance had been of great value in stamping out disease in these camps. In many instances employees did not wish to be vaccinated, and employers, being afraid of losing the men, did not press it on them. Referring to the thorough work of inspection in the Sudbury camp, the Health Officer said that the six suspected persons who left the camps were captured by the officers of the Board while on the train leaving the district. Dr. Bryce advised the vaccination test being required before children were admitted to public schools. In cases of contagious disease he advised that the infected persons should not be kept in their own homes, but should be removed to a temporary hospital.

As a proof of the large expense incidental to stamping out smallpox in Ontario, he stated that the disbursements made by municipalities for this purpose during eleven months of 1901, amounted to $450,000; the expenditure by the Provincial Government for the same purpose was $25,000.

He reported that the spread of smallpox had been to a great extent checked, and that the number of cases reported during the past month decreased 50 per cent. Last year 1,879 cases occurred throughout the Province. In January of this year there were reported 629 cases, in February 707 cases, and in March the number was reduced to 302 cases. The total number of cases for the past fifteen months was 3,517.

Dr. Bryce, in dealing with the general health of the Province, pointed out that it had, during the first three months of the year, been unusually satisfactory. He mentioned that the country had been unusually free from an epidemic of influenza, which for the past twelve years had been a regular visitor.

At the morning session, April 11th, Dr. Cassidy read a report based on the provisions of Clause 9 of the Ontario Public Health Act, and entitled "Sudden deaths due to chloroform and gastric diseases." The report showed that sudden deaths, or deaths occurring rapidly, are relatively frequent, but that deaths proved by autopsy to be due to an embolus, a burst aneurism, or a ruptured heart, are rare. In certain cases of sudden death, the cause of death would not be revealed by an autopsy. The writer instanced death resulting from the primary shock of chloroform, and death from gastric affections. The discussion which followed did not refer to the chief conclusion of the paper, to wit, that in certain cases an autopsy did not reveal the cause of death, but dealt with the negligence of doctors who use the term "heart failure" in making out death certificates, and the difficulties of coroners in obtaining inquests. Dr. Bryce, who is Deputy Registrar-General, particularly censured doctors for giving heart failure as a cause of death in certificates. He said that it would not be accepted in England, and he did not intend to accept it in his department (registrar-general).

Dr. Oldright brought up the matter of coroners' affidavits, and declared that no coroner should be expected to swear that there were evidences of foul play in connection with a death before he could begin an investigation. He said that coroners throughout the country should protest against this, in view of the fact that in many instances no evidence of foul play existed in connection with a death until after an investigation had been made and an autopsy held. Greater powers of discretion should be given coroners. Dr. Vaux agreed, and said that any coroner who had showed a disposition to hold an inquest without sufficient cause could be relieved of his position.

At the afternoon session the discussion was resumed. Dr. Cassidy suggested that the Board do not take any definite action in reference to coroners at present. If the coroners were hampered in their efforts to ascertain the causes of sudden

deaths, or deaths which could not be properly explained, they should endeavor to obtain a better Act. Dr. Vaux coincided with this view, which was carried. Dr. Cassidy's report was adopted.

The plans prepared for the disposal of the sewage of Woodstock, which plans provided for the prevention of the waste of water, which had seriously affected the filtration plant, were adopted, and the Committee on Water Supply reported favorably upon the proposed water supply system for the town of Southampton. The water will be taken from a filtration basin on the lake shore. The Board approved of the sheme. The Board also endorsed the plans for the alterations in the sewage system of Stratford.

Drs. Cassidy and Bryce were named as delegates to the Conference of the Canadian Association for the Prevention of Tuberculosis in Ottawa on April 17 and 18. Dr. Kitchen was named as a delegate to the meeting of the International Association of Railway Surgeons in St. Louis on April 30. The Board then adjourned.

The John Usher Institute of Public Health, Edinburgh.—The John Usher Institute of Public Health, Edinburgh, which is now almost completed, will probably be opened within the next three months. The chair of public health in Edinburgh University was founded in 1898—the necessary endowment having been provided by a legacy of £5,000 from the late Mr. A. L. Bruce, supplemented by over £2,000 from Mrs. A. L. Bruce and others, together with £8,000 given by Sir John Usher, of Norton. The Public Health Department in the new university did not, however, possess adequate laboratory accommodation for the new chair. Sir John Usher then most generously offered to build and to equip an Institute of Public Health, and it is this institute which is now nearing completion. It was first intended that the building should occupy ground lying between the Music class-room and the Students' Union, but this site had to abandoned as the supply of light was deficient. A site in Warrender Park road was then adopted, where the conditions as regards light supply are all that could be desired. The Institute lies on the south side of the road, and faces north. It is rectangular in form, and covers an area of 133 feet by 48 feet. The exterior of the building is treated simply in classic Renaissance style. On the lintel of the main doorway three shields are to be cut, the centre one representing the Scottish Lion, and the lateral shields showing the coat-of-arms of the donor, Sir John Usher, and of the Chancellor of the University, the Right Honorable A. J. Balfour.—*Lancet.*

Selected Articles.

THE CHARACTERISTICS OF GENUINE VACCINIA—EXPERIENCE WITH GLYCERINATED LYMPH AND SOME STATISTICS OF THE PRESENT SMALLPOX EPIDEMIC.*

BY WILLIAM M. WELCH, M.D., OF PHILADELPHIA,
Physician-in-Charge of the Municipal Hospital for Infectious Diseases,
AND
JAY F. SCHAMBERG, M.D., OF PHILADELPHIA,
Professor of Diseases of the Skin at the Philadelphia Polyclinic; Assistant Attending Physician to the Municipal Hospital.

It is essential for the reputation of vaccination that no misconceptions should arise concerning the criteria upon which a diagnosis of true vaccinia is based. Nothing is so injurious to the cause for which Jenner so conscientiously labored as to give to a spurious or false disease the name of vaccinia.

The following may be regarded as the typical course of the vaccine disease. On the third or fourth day after vaccination a very faint redness may be seen at the point of inoculation. This redness gradually increases, while at the same time a distinct reddish papule is formed, which varies in size according to the extent of the abrasion. On the fifth day the lesion begins to assume a vesicular condition. This is usually seen first at the margin of the site of inoculation. The vesicle gradually increases in size, the contained lymph being at first thin and perfectly transparent. On the eighth day the vesicle reaches its greatest perfection. It is then considerably elevated above the level of the skin and presents a pearly or yellowish appearance. When examined closely it will be found to have, even at an early stage of its development, an umbilicated form similar to that seen in vesicles of variola. About this time there appears around the vesicle an inflammatory circle which is called the areola. During the ninth or tenth day the redness increases, the inflamed skin becomes tense and painful, and streaks of redness often extend a considerable distance from the lesion. The neighboring lymphatic glands become enlarged and painful.

At the same time mild constitutional symptoms appear, slight

* Read at the Philadelphia County Medical Society, November 13th, 1901.

rigors, a rise of temperature of one or two degrees, malaise, anorexia, disturbed sleep, etc. Many children, however, pass through the regular course of vaccinia without any apparent systemic disturbance. Occasionally in severe primary vaccinations a macular eruption, designated as *roseola vaccinosa* and bearing considerable resemblance to measles, may appear.

On the eleventh or twelfth day the pock begins to fade, its contents become opaque and desiccation appears in the centre. By the fifteenth day desiccation is usually completed, although the crust does not fall off until the end of the third or frequently the fourth week. The completed crust is of a mahogany color, rough on its exterior, thin at its centre and periphery, with a thick circular ridge between. The scar is at first red, but in the course of a few months becomes paler than the surrounding skin. It is pitted or foveolated, and not infrequently presents radiating bands or striæ of cicatrical tissue.

The query is often asked, what constitutes a successful revaccination? This is a question about which there is some diversity of opinion. Many believe that, unless the vesicle and areola observe the course of true vaccinia, the effect is merely local and devoid of prophylactic power. But it is evident on a little reflection that there is no more reason why we should expect the vaccine disease produced by revaccination to be typical than that we should expect smallpox after vaccination to run the typical course of variola vera. If there be modified smallpox or *varioloid* after vaccination, so should there be modified vaccinia or *vaccinoid*. From these premises the conclusions may be deduced that, as varioloid confers immunity against a recurrence of smallpox, so also does the modified form of vaccinia resulting from revaccination remove from the individual whatever susceptibility to the disease may be present.

As the analogy between cowpox and smallpox is in most respects very close, and as variola frequently differs in the duration and severity of its local manifestations, so also it must not be expected that the local lesions of vaccinia will invariably follow the typical course just described. In some cases, the disease is undoubtedly shorter and milder, while in others it is longer and severer. No deviation, however, should occur in the evolution of the pock; that is to say, it should pass through the stages of papulation, vesiculation and pustulation. It has been known to appear as late as one month after the inoculation was done, and then develop and run regularly through its course. Likewise the constitutional symptoms are not uniform. They may be mild or entirely absent.

There are certain false vaccine conditions which claim attention. The raspberry excrescence when seen usually appears from three to seven days after vaccination, beginning as a red elevation at the site of inoculation, quite similar in appearance to the papule of true vaccinia, but instead of advancing to the vesicular stage it

remains hard, dense, bright red in color and nodular in form, looking not unlike a small nevus. It is very persistent, remaining usually weeks or months, and is not followed by a scar. This spurious excrescence is more frequently seen since the general employment of bovine lymph. Experience has proven that this raspberry form of the vaccine disease is utterly devoid of protective power against either variola or vaccinia.

There are some physicians who allege that practically all of the lesions produced by glycerinated lymph are spurious.

Dr. F. J. Runyon, of Clarksville, Tenn. (*Memphis Medical Monthly*, August, 1901), condemns glycerinated virus, and quotes series of cases in which the lymph, although apparently producing successful vaccinations, failed to protect against successive inoculations and also against smallpox. He says: "When using the glycerinated lymph I had, as I thought, some beautiful results from it, but I now question whether any of these are thoroughly protected from variola. I vaccinated with points (to make sure of protection) those who had recently been successfully vaccinated with the tubes, and observed that in every instance the vaccinia was apparently just as severe as in the primary vaccinations. The converse of the above trial did not hold true, for I found those upon whom the points had been successfully used immune to the glycerinated lymph." The virus was fresh, and that largely employed was made by a prominent western firm. (The name is mentioned by the author, but is here omitted.) The physicians in adjoining States to whom these results were communicated, also found that in the majority of instances the points would take upon those whom they thought they had rendered immune by the previous use of glycerinated lymph. One of the physicians stated that, of all the vaccinations done by him with tubes, not one that he had seen left a satisfactory scar. Another wrote that of a certain series of vaccinations "the best result he had was in a negro who subsequently contracted smallpox." Similar statements were quoted from a half dozen or more physicians, the consensus of opinion being that the glycerinated tubes were totally unreliable.

Our experience with glycerinated lymph at the Municipal Hospital has been quite different from that above quoted. It has been employed to the exclusion of all other forms of virus, this being the lymph provided to us by the Philadelphia Board of Health, which obtains it from a different source from that mentioned by the paper above referred to. Not one thus far, who has been vaccinated previous to exposure, has contracted smallpox. About fifty individuals, including physicians, nurses and attendants, have been continuously and freely exposed to the disease. Nearly all of these were vaccinated with glycerinated lymph, with a successful result in a considerable percentage of cases. Some had very sore arms and sufficient constitutional disturbance to necessitate rest in bed for a day or two. A number of the unsuccessful cases underwent a repetition of the vaccination. In all of

these cases there appeared to be full protection. It should be stated that the vast majority of the number referred to had scars from primary infantile vaccinations. In addition to the individuals above referred to as being exposed, there were some sixty or more workmen, engaged in the construction of a new pavilion, who were in close proximity to the smallpox patients. These were vaccinated with glycerinated lymph, some for the first time, and none up to the present date has contracted the disease. One workman who, by the way, was the only one to refuse vaccination, has within the past week been brought into the hospital with smallpox. He bears upon his arm a good scar from infancy. An unvaccinated garbage-waggon driver and several other unprotected individuals, who were merely exposed upon the grounds, contracted the disease.

The opportunity was also afforded of testing the value of glycerinated lymph in primary vaccinations in individuals exposed in the wards. One of the nurses who has been employed in nursing smallpox for over two months, and in whom the vaccination was primary, has been found to be absolutely immune. A child of one year, vaccinated with glycerinated lymph about ten days before, was sent into the hospital with a vaccine roseola which had been diagnosticated as variola. The child was in the smallpox wards about three weeks and remained perfectly well. A colored child, about two years old, having some fever, was brought into the hospital with a sister suffering from smallpox. The child was successfully vaccinated with glycerinated lymph on admission, and did not contract the disease. Several other unprotected children and adults who were vaccinated after admission have been rendered absolutely immune to smallpox.

We have from time to time received in the hospital patients with well-marked and even fatal smallpox in whom vaccination, performed some weeks before, had failed. We recall one patient, a large, stout woman of thirty years, who had been vaccinated without result some years before, and who was vaccinated with glycerinated lymph one month before admission. There was some local reaction, and the physician in attendance was for a time in doubt as to whether there had been a successful "take," finally deciding in the negative. The patient was brought into the hospital with confluent smallpox and died in ten days. From our examination of the patient on admission we were convinced that the result had been spurious. . . . .

Such unsuccessful results can scarcely be specifically charged against glycerinated lymph, inasmuch as occasional failures with bovine lymph, more particularly with dry points, have been for years common even in persons susceptible to vaccinia or smallpox.

The striking difference in the experience of different observers with glycerinated lymph, may be explained in two ways.

It is quite within the bounds of possibility that the virus furnished by the various propagators of lymph may not be equally

reliable. If this be true, it would constitute a strong argument in favor of a government vaccine establishment, similar to those existing in England and certain other European countries. The lymph could be gratuitously dispensed to physicians, thus eliminating the commercial factor in the preparation and sale of vaccine virus.

Or the discrepant results may be explained by diversity of opinion, as to what constitutes true vaccinia. Any result which deviates to any considerable extent from the description of primary vaccination given by Jenner should not be regarded as genuine. There are certain local reactions not infrequently met with after the use of glycerinated lymph, and perhaps other forms of bovine, virus which deviate considerably from the Jennerian delineation. In these cases it is not uncommon to note an abnormal degree of inflammatory action even as early as the second, third or fourth day. Upon this area there frequently springs up with surprising rapidity a more or less conical or globular blister instead of a typical vesicle. This elevation is thin-roofed, readily ruptured, and gives exit to a thin irritating fluid which speedily dries in the form of yellowish-brown bulky crusts, the exudation continuing to ooze out at the margins. After shedding of the crusts there is left a faint scar which is devoid of the characteristics of a true vaccine cicatrix. The so-called "takes" which do not protect against smallpox or vaccinia are probably of this nature. Whilst it is impossible to positively affirm that these lesions are entirely devoid of all specific reaction, yet they should not be relied upon to give protection against smallpox. An observation which militates strongly against their being even partial "takes" is that they may develop in individuals who are known to be immune against smallpox. Recently such a lesion developed in a physician who has been steadily exposed to smallpox for a long time. Reactions of the character above described are more common in cases of revaccination.

In many successful vaccinations in which glycerinated lymph is employed, there is an excessive amount of inflammatory reaction. A sort of dermatocellulitis develops, the redness and swelling involving at times the entire arm. The vaccine vesicle spreads considerably beyond the border of the scarification, reaching often the size of a quarter dollar. Not infrequently this area undergoes necrotic change, giving rise to a slough, which, when cast off, discloses to view a large, deep, cup-shaped ulcer, which very slowly heals up by granulation. The resultant scar in these cases is apt to be smooth and shining, and devoid of the depressions and bands seen in a typical vaccine cicatrix.

It is surprising that with a virus which is alleged to be free from extraneous micro-organisms such sore arms should be produced. Upon theoretic considerations we would expect such results to be eliminated by the use of a lymph which contained no active principle save the vaccine matter. It may not be out of place to remark that many propagators of virus are to-day violat-

ing an important precept of Jenner in the preparation of the virus. Jenner insisted upon the exclusive use of the clear lymph of the vesicle. In the preparation of the glycerinated lymph the entire lesion is curetted, bringing away lymph, vesicle walls and broken-down epithelial tissue, all of which is made into a pulp and mixed with glycerine and water. May not the sore arms be possibly due to the admixture of this tissue débris?

The question is frequently asked, "at what age should an infant be vaccinated?" When smallpox is absent from a community, this may be delayed until the child has reached the age of three months. During an epidemic of smallpox, however, no age is a contraindication to the performance of vaccination. Children born at the Municipal Hospital of mothers suffering with smallpox are vaccinated immediately upon their entrance into the world. Recently a woman with a mild varioloid gave birth to an infant of seven and a half months development. This child was successfully vaccinated in two places, although it later succumbed to a varioloid with which it had been infected *in utero.*

Many physicians hesitate about vaccinating individuals who are suffering from some other disease. At the Municipal Hospital recently scores of patients suffering from diphtheria and scarlet fever were vaccinated as a precautionary measure. The vaccination did not unfavorably influence the original disease, and on the other hand, the course of the vaccinia was in no case unusual.

Since the beginning of the present year (1901) about three hundred cases of smallpox have been treated at the Hospital. *Of this number not a single patient has been recently successfully vaccinated.* The shortest period elapsing between a successful vaccination and the contraction of the disease was five years. In this case, which occurred in a boy eleven years old, the eruption consisted of only a score or so of papules, which scarcely developed into vesicles, but dried up in a few days. It was not found necessary to confine the lad to bed.

Whilst the majority of the patients admitted were unvaccinated, a very large number had been vaccinated in infancy. To our knowledge none, save the boy mentioned, had been successfully vaccinated within the past ten years.

The writers believe that it may be lain down as a rule, that if a child be successfully vaccinated in infancy, and again at the age of puberty, the protection will be permanent. The exceptions to this rule, however, may be sufficiently frequent to warrant a repetition of the vaccination whenever there is exposure to smallpox. . . . .

The opinion has been advanced, more especially by Marson, of London, that the degree of vaccinal protection in an individual is directly proportionate to the number of insertions made. According to the experience of the writers the *quality* of the vaccine scars is a far more reliable indication of the degree of protection than the *quantity.* A perfectly good vaccine cicatrix presents

well-defined margins, is reticulated or foveolated, and looks as if it had been stamped into the skin with a sharply cut die. It has been said that genuine pocks are frequently not followed by scars, but without denying this absolutely, we would advise that such assertions be regarded with a considerable degree of skepticism. The general mortality rate from smallpox, as far as we are able at the present time to estimate it, has been about 20 per cent. This is merely an approximate statement, as the ultimate outcome of the two hundred cases now in the Hospital cannot be actually predicted. The mortality rate among the vaccinated has been about 11 per cent., and among the unvaccinated about 33 per cent. Of the former class the mortality rate of those bearing good scars was about 4 per cent., fair scars about 8 per cent., and poor scars about 20 per cent. In concluding, the writers desire to express their condemnation of the use of tight-fitting shields. These, by constricting the circulation of the surrounding skin, serve to increase the inflammation and tendency to early oozing. There is no objection to the use of a shield for a few hours, until the vaccine lymph has dried upon the abrasion, but its continuous use during the development of the vaccine lesion is apt to do more harm than good.—*The Philadelphia Medical Journal.*

CREOSOTAL IN THE TREATMENT OF ACUTE NON-TUBERCULAR DISEASES OF THE RESPIRATORY ORGANS OF NURSLINGS AND CHILDREN.

BY DR. WILHELM MEITNER, DISTRICT PHYSICIAN AT WOSTITZ.

The creosotal treatment has given the author most excellent results during the past two years, more especially in children, and even in infants. This is shown by the special records that he has kept in over seventy-five cases.

The simplicity and agreeable nature of the treatment makes it especially suitable for country practice and for the poor in large cities. Nothing more is required than occasional cardiac stimulation by means of small doses of wine.

The creosotal was noticeably effective both upon the etiological factor and the local disease focus; and the secondary affections that so frequently occur in these patients were either entirely absent, or showed a greatly diminished severity.

By means of the large doses of the non-poisonous remedy that could be administered, the tissue fluids of the organism were saturated with creosote; this was evident from the odor of the sweat that accompanied the fall of temperature, which remained in the clothes for days. Kidneys, skin, and lungs excreted the drug; the urine became dark and of the characteristic odor; but

any excess was excreted by the bowels without any irritative symptoms, as the author saw occasionally in infants taking large amounts of it.

Dr. Meitner lays especial stress upon the fact that the earliest creosotal excretion occurs in the expired air, making its use very advantageous in respiratory affections. There is thus a constant creosote diffusion through the bronchial mucosa, which is in many cases the seat of the disease; and the air spaces are filled with a creosoted and disinfected air.

Antipyretics were needless, since the creosotal controlled the fever by acting upon its cause more quickly and promptly than the drugs usually employed for that purpose. In acute laryngites, bronchites, and moderate bronchopneumonias, the fall of temperature accompanied the dosage step by step; so that in twelve to thirty-six hours the fever had disappeared, exactly as occurs in a fresh lobar pneumonia. Even in longer standing cases the temperature became normal or nearly so in seventy-two hours at the most; slight remains of it persisting for two or three days in cases that were already debilitated by chronic affections when attacked by the disease.

Dr. Meitner warns against the employment of too small doses, which do not give the desired effect. Infants seriously ill should get 1 gram (15 grains) daily if under six months of age; and up to one year of age 1.5 grams (22 1-2 grains). From one to two years the daily amount should be 2 to 2.5 grams (30 to 37 1-2 grains), from two to five years 2.5 to 4 grams (37 1-2 to 60 grains) and from five to ten years 4 to 6 grams (1 to 1 1-2 drams). The number of doses into which these amounts are divided is not of much importance; but the drug should be administered every five to eight hours. Care should be taken not to let too great an interval elapse without medication during the long winter nights.

As the temperature falls, the dryness of the tongue, the audible, labored breathing, the frequent pulse, and the restlessness and depression also disappear. Thirst, headache, dyspnea, and exhaustion become less; the children get brighter; and the appetite often returns suddenly, as it does after typhoid fever, so that it is difficult to keep the patients to a suitable diet for the first twenty-four or forty-eight hours thereafter. Nursing infants can be permitted to satisfy their hunger freely. The general symptoms disappear even before the creosotal has had time to exercise its full effect upon the local focus of disease.

The more recent the disease changes, the quicker do they give way. Simple acute laryngites and anginas disappear in one day; they seldom persist for two; and in the latter period even subchronic forms lose much of their intensity, to disappear by the fourth. In acute bronchites, in their earlier stages we can be sure of a rapid result; they often disappear entirely in twenty-four

hours. The same is true when it has entered into the dry stage; a single prescription is often sufficient to cure the case.

Bronchitis cases that are several days old, and in which the mucosæ are greatly irritated and dry, are rapidly moistened by the creosotal and cured in a few days. The solvent action of the drug is well seen in the older, dry bronchites, with but little tough secretion; it quickly renders the expectoration more fluid, and ends the process. The same thing occurs in the capillary bronchitis of infants; the tough mucoid masses become fluidified, and the cough becomes ceaseless, thus avoiding the dangers of atalectasis of the lungs and suffocation. Since Meitner has employed creosotal he has had three cases of pronounced capillary bronchitis, and has lost none of them.

In bronchopneumonic processes the areas of consolidation rapidly disappear under the solvent action of the drug; and in lobar pneumonias the infiltrations melt away soon after defervescence of the fever. This latter usually occurs at a time that there is still pure bronchial breathing without any rales at the site of the local lesion. But they appear abundantly during the next twenty-four hours, and the children improve so rapidly that they can hardly be kept in bed; and during the next two or three days the lungs clear up entirely, for the expectoration is abundant and easy in consequence of the solution of the mucoid masses.

There is hardly any period of exhaustion or convalescence after these severe bronchites, bronchopneumonias, and pneumonias; it is almost completely absent under the creosotal treatment; and therefore the gastro-intestinal complications that are generally so common are but rarely seen.

Infants and small children, as is well known, swallow their expectoration; and here the creosotal, a most excellent intestinal antiseptic, prevents that tract from being damaged thereby.

The treatment must not be stopped with the cessation of the fever; to prevent relapses and complications it must be continued as long as mucus is audible in the lungs. If the creosotal is stopped before the local lesions have entirely disappeared, reinfection, renewed fever, and extension of the local trouble may occur. The dosage may be diminished as soon as there is a decided local improvement; and it should be continued for one day after the lung symptoms have entirely disappeared.

Dr. Meitner here appends a tabular list of twenty-one cases of bronchitis in nurslings, thirty cases of bronchitis in children aged one to ten, three cases of bronchitis suffocativa, ten bronchopneumonias, and eleven pneumonias treated with creosotal. In some of them there is really no history at all, since the disease was absolutely aborted. Cassoute has called attention to this class of cases, in which the sudden high fever and marked symptoms disappear after a few teaspoonfuls of creosotal mixture, and the

child is absolutely well in twenty-four hours. Many of them were cases of measles; but the author states that he give no treatment at all for the exanthematic disease, and all the cases included were such as had marked complications that gave special indications for treatment. Complicated cases of measles get well almost as fast under the creosotal treatment as uncomplicated ones under no treatment at all. There were no sequelæ of any seriousness. Even a severe case of pneumonia and enteritis, which had at first been treated by some one else, and not with creosotal, and which was in a very serious condition when Meitner took hold of it, soon recovered completely under creosotal.

In concluding, Dr. Meitner inquires what Creosotal Von Heyden can be expected to effect in the complications of measles. Where there are anginas and laryngites the troublesome cough ceases after two or three large doses in two to six hours, and sometimes permanently. Where moist rales, in addition to the rough breathing and localized sibilant and sonorous rales, show the presence of a general bronchial catarrh, the phenomena disappear in one, two, or at most three days, even in individuals of such constitution that we would not expect such a favorable course to the disease. When the very first examination shows areas of consolidation in the catarrhal lung, their signs become plainer during the first day in consequence of the immediate retrogression of the general catarrhal symptoms, and in forty-eight hours these have usually entirely disappeared. The serious symptoms, the rapid, superficial breathing, the audible rales, the prostration, soon become less marked, and all the symptoms disappear during the next few days under the creosotal. In half-grown children, who cannot be kept long enough in bed, measles is often followed by a subacute bronchitis, a cough with expectoration, lasting a week or more. These conditions also are relieved by creosotal in two to three days.

The gastro-enteric sequelæ that occasionally set in later after an attack of measles, and that are caused by swallowing the expectoration, are mitigated by the administration of creosotal; and are rapidly cured.

Anyone who has once treated the complications of a measles epidemic with creosotal will not be willing to do without it in the next series of cases that he meets.—Abstracted from the *Allgemeine Medicinische Central-Zeitung*, Berlin, January 22nd and 25th, 1902.

Increase of Drug Habit.—The startling increase of the drug habit in Paris is instanced in the use of absinthe, the amount consumed having doubled within the past five years. A late report states that at least 8,000,000 bottles are drunk in a year.

The Canadian Journal of Medicine and Surgery

J. J. CASSIDY, M.D.,
EDITOR,
69 BLOOR STREET EAST, TORONTO.

W. A. YOUNG, M.D., L.R.C.P.Lond.,
GENERAL MANAGER,
145 COLLEGE STREET, TORONTO.

Surgery—BRUCE L. RIORDAN, M.D.,C.M., McGill University; M.D. University of Toronto; Surgeon Toronto General Hospital; Surgeon Grand Trunk R.R.; Consulting Surgeon Toronto Home for Incurables; Pension Examiner United States Government; and F. N. G. STARR, M.B., Toronto, Associate Professor of Clinical Surgery, Lecturer and Demonstrator in Anatomy, Toronto University; Surgeon to the Out-Door Department Toronto General Hospital and Hospital for Sick Children.

Clinical Surgery—ALEX. PRIMROSE, M.B., C.M. Edinburgh University; Professor of Anatomy and Director of the Anatomical Department, Toronto University; Associate Professor of Clinical Surgery, Toronto University; Secretary Medical Faculty, Toronto University.

Orthopedic Surgery—B. E. MCKENZIE, B.A., M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Surgeon to the Out-Patient Department, Toronto General Hospital; Assistant Professor of Clinical Surgery, Ontario Medical College for Women; Member of the American Orthopedic Association; and H. P. H. GALLOWAY, M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Orthopedic Surgeon, Toronto Western Hospital; Member of the American Orthopedic Association.

Oral Surgery—E. H. ADAMS, M.D., D.D.S., Toronto.

Surgical Pathology—T. H. MANLEY, M.D., New York, Visiting Surgeon to Harlem Hospital, Professor of Surgery, New York School of Clinical Medicine, New York, etc., etc.

Gynecology and Obstetrics—GEO. T. MCKEOUGH, M.D., M.R.C.S. Eng., Chatham, Ont.; and J. H. LOWE, M.D., Newmarket, Ont.

Medical Jurisprudence and Toxicology—ARTHUR JUKES JOHNSON, M.B., M.R.C.S. Eng.; Coroner County of York; Surgeon Toronto Railway Co., Toronto; W. A. YOUNG, M.D., L.R.C.P. Lond.; Coroner County of York, Toronto.

Pharmacology and Therapeutics—A. J. HARRINGTON M.D., M.R.C.S.Eng., Toronto.

Medicine—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon, Toronto General Hospital; and W. J. WILSON, M.D., Toronto, Physician Toronto Western Hospital.

Clinical Medicine—ALEXANDER MCPHEDRAN, M.D., Professor of Medicine and Clinical Medicine Toronto University; Physician Toronto General Hospital, St. Michael's Hospital, and Victoria Hospital for Sick Children.

Mental Diseases—EZRA H. STAFFORD, M.D., Toronto, Resident Physician Toronto Asylum for the Insane.

Public Health and Hygiene—J. J. CASSIDY, M.D., Toronto Member Ontario Provincial Board of Health; Consulting Surgeon Toronto General Hospital; and E. H. ADAMS, M.D., Toronto.

Physiology—A. B. EADIE, M.D., Toronto, Professor of Physiology Woman's Medical College, Toronto.

Pediatrics—AUGUSTA STOWE GULLEN, M.D., Toronto, Professor of Diseases of Children Woman's Medical College, Toronto.

Pathology—W. H. PEPLER, M.D., C.M., Trinity University; Pathologist Hospital for Sick Children, Toronto; Demonstrator of Pathology Trinity Medical College; Physician to Outdoor Department Toronto General Hospital; Surgeon Canadian Pacific R.R., Toronto; and J. J. MACKENZIE, B.A., M.B., Professor of Pathology and Bacteriology, Toronto University Medical Faculty.

Ophthalmology and Otology—J. M. MACCALLUM, M.D., Toronto, Assistant Physician Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

Laryngology and Rhinology—J. D. THOBURN, M.D., Toronto, Laryngologist and Rhinologist, Toronto General Hospital.

Address all Communications, Correspondence, Books, Matter Regarding Advertising, and make all Cheques, Drafts and Post-office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College St., Toronto, Canada.

Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the fifteenth of the month previous to publication.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month.

VOL. XI. TORONTO, MAY, 1902. NO. 5.

Editorials.

THE OPERATIVE TREATMENT OF CHRONIC BRIGHT'S DISEASE.

In our March number appeared an original paper from Dr. Primrose, entitled "The Operative Treatment of Chronic Bright's Disease." In this paper was given the history of a case in which marked symptoms of chronic nephritis, viz., albuminuria, the presence of hyaline, granular, fatty, and epithelial casts in the urine, together with edema, anasarca, and ascites, were present. In addition, paracentesis abdominis had been done seven times,

before the patient came under Dr. Primrose's notice, and was repeated twice afterwards.

November 21st, 1901, incision of the capsule of the right kidney (nephrotomy) was performed by Dr. Primrose. Improvement in the amount of urine voided, with a lessened percentage of albumen in the urine, followed. December 20th, a decapsulation of the left kidney was performed. A pneumonia ensued, but after it had disappeared great improvement was noticed in the condition of the patient. The amount of albumen in his urine diminished, until on February 20th, 1902, sixty-two days after decapsulation had been done, only a trace of albumen was noticed, and a few casts were still present in the urine. The anemia had largely disappeared, and there was no return of the edema or ascites.

Dr. Primrose considers his very meritorious work as empirical, and offers no solution of the cure, leaving the explanation to the research laboratories. He says, "The questions to be solved are: How can this operation produce such an effect upon the secretory activity of the kidney as to increase the amount of urine secreted, and to diminish the amount of albumen, and how are these effects so far reaching as to remove edema and ascites?" A quasi reply might be given to those questions by quoting a report made March 1st, 1902, to the Society of Biology of Paris, by MM. Claude and Balthazard: "Instead of nephrotomy, which has been performed of late in surgical diseases of the kidney, and in grave forms of nephritis, we propose to substitute decapsulation of the kidney, as we thereby prevent the possibility of urinary accidents. Decapsulation facilitates the re-establishment of the renal circulation in those cases in which the blood vessels are compressed by the renal parenchyma, which has become edematous, and is prevented from expanding by the capsule of the kidney, as well as in cases of arterial sclerosis. In healthy dogs, decapsulation of the kidney does not cause any perceptible change in the elimination of the secreted substances, nor in the excretion of the organism, as we have been able to assure ourselves on these points directly and by the cryoscopic method."

According to this view, which is the product of research and laboratory investigation, decapsulation of the kidney is substituted for incision of the organ, simply to avoid the dangers of urinary infiltration, and the French scientists do not state that the func-

tional result, so far as the secretion of urine is concerned, is superior after decapsulation to that which follows nephrotomy.

In Dr. Primrose's case, however, the results which followed decapsulation of the kidney were better than those which followed nephrotomy, and there is reason to believe that some more far-reaching purpose than the removal of the pressure caused by edematous renal parenchyma on renal blood vessels, is obtained after the stripped kidney is placed in intimate association with the enveloping kidney fat.

We much prefer the answer given by Dr. Edebohls, of New York (*Medical Record,* December 21st, 1901). He says: "How does operation act in bringing about a cure or improvement of chronic Bright's disease? The answer to this question has, to my mind, been settled, as a result of observations made during the course of three operations upon kidneys that had previously been operated upon by myself and two other surgeons. In each instance nephropexy was the operation originally performed. At the second operation upon the same kidney the following conditions were noted, as results of the first operation: First, the formation of strong connective tissue bands or adhesions, attaching the kidney to its surroundings. Secondly, the existence in these connective tissue adhesions or bands of very large and numerous blood vessels, running between the kidney and the adjacent tissues. This fact was forcibly brought home to my assistant and myself by the necessity of ligating artery after artery of considerable size, in dividing these adhesions. Thirdly, the predominance in number and size of the newly-formed arteries over the newly-formed veins. Fourthly, the significant fact that, in all the arteries, the direction of the blood stream was toward the kidney."

Dr. Edebohls says, in another paragraph, "The denuded kidney and its fatty capsule are most liberally supplied with blood vessels. Both are brought together by my operation over the whole extent of the surface of the kidney, and the necessary result must be the formation, on the most extensive scale possible, of new vascular connections between the kidney and the fatty capsule embracing it. The fibrous capsule proper forms an almost impenetrable barrier to the passage of blood vessels between the kidney and its fatty capsule, as I have had abundant opportunity to verify in my operations upon the kidney. It is not at all uncommon, for instance, in operating upon a kidney, to find the

blood vessels of the fatty capsule greatly increased both in number and size, generally as the result of a perinephritis. Now and then a large artery of the fatty capsule will be seen entering and apparently penetrating the capsule proper. On raising the capsule proper from the kidney, however, the artery is not severed, and further investigation shows that it does not enter the kidney; but is lost upon and in the capsule proper, which has thus intercepted a possible new blood supply to the kidney." Dr. Edebohls also contends that, as a result of the increased arterial supply to the kidney, there is a gradual absorption of interstitial or intertubular inflammatory products and exudates, thus freeing the tubuli uriniferi and glomeruli from external compression, constriction and distortion, and permitting the re-establishment in them of a normal circulation. The result of this improved circulation in and between the tubuli and glomeruli is the regenerative production of new epithelium capable of carrying out the secretory function. He makes this latter statement on the authority of the following passage in E. Ziegler's text-book of Special Pathological Anatomy: "When a portion of the renal epithelium has been destroyed by a morbid process, which spares the interstitial structures, the loss is in general soon made good by regenerative proliferation of the remainder; and, if the circulation is adequately maintained, the new epithelium presently becomes capable of carrying on the secretory function."

It is apparent, therefore, that in Dr. Edebohls' operation, the decapsulation of a kidney affected with Bright's disease is only the initial step in the process of cure, one of the subsequent and the most important steps being the establishment of vascular channels between the kidney fat and the diseased kidney. Additional force is added to this contention by the fact that in chronic Bright's disease the kidney capsule is not stretched by edematous renal parenchyma, and does not appear, as it were, to demand a nephrotomy in order to obtain relief from tension, as it does in acute nephritis. On the contrary, it is often found by the surgeon that the renal capsule, although it may be abnormally adherent to the kidney, never compresses the latter, and may even sit loosely upon it.

In an editorial, it would not be easy to do more than mention some of the more important features of Dr. Edebohls' paper. The paper is of great value, and its author deserves credit for his surgi-

cal skill and, in our opinion, greater credit for his observations on the restoration of urinary secretion in diseased kidneys. He has elaborated a working theory of the *restitutio ad integrum* of a nephritic kidney after its capsule has been stripped off, by observations made on the living bodies of patients cured by his operation. The success obtained by our collaborateur, Dr. Primrose, in curing what might be fitly called a desperate case of Bright's disease, is very gratifying to all his friends, and is worthy of the highest professional recognition. Whatever the rationale of the cure of Bright's disease after decapsulation may be, whether it be due to the relief of the renal parenchyma from injurious pressure (Claude and Balthazard), or that this relief is but an initial step, followed by the development from the perinephritic tissues of an enriching blood supply to the kidney, which heals old renal lesions, and maintains the kidney in good working condition (Edebohls), must be regarded as a matter of conjecture.

The impetus given to the surgical treatment of chronic Bright's disease will, however, certainly multiply observations, and to them and to pathology must we look for the solution of the physiological question and the success or failure of the new procedure.

J. J. C.

BELLADONNA IN THE TREATMENT OF CONSTIPATION.

Though belladonna was recommended by some authors at the end of the seventeenth century for the relief of constipation, the physiological and therapeutic reasons for its successful employment were not understood, and, indeed, have only in recent years been properly explained.

The action of atropine on the intestines was demonstrated in the experiments of Dr. Traversa, which are recorded in *Policlinico,* November 15th, 1897. The animals used in his experiments were narcotized with chloral, which, unlike chloroform and ether, does not influence peristaltic action. To prevent the effects of cold on the viscera they were immersed in a physiological salt solution at 98 3-5 F. It was found that the unvarying effect of atropine was to weaken the peristaltic movements, and all the more in proportion to the quantity of the drug employed. Experimenting on a horse, Traversa found that a hypodermic injection of from .30 to .60 grams of the hydrochlorate of pilocarpine caused in ten

minutes abundant stools, at first solid and afterwards liquid. In a second experiment on the same animal he neutralized the action of pilocarpine by injecting .25 grams of sulphate of atropine before injecting the pilocarpine. Traversa therefore concluded that belladonna is contraindicated in constipation arising from atony of the bowel in man, but that, on the contrary, its employment is perfectly rational in lead colic and in all cases in which the constipation complained of depends on a spasmodic contraction of the bowels. The eminent clinical authority, Trousseau, was candid enough to confess that belladonna purged in a certain number of cases, but that he could not tell why it purged in one case and failed to purge in another case. The American clinical authority, Flint, says: "Trousseau claims for his favorite medicine, belladonna, that it acts as an efficient laxative in cases of habitual constipation. It has failed to have this action in my experience, and I have frequently made trial of it."

As an outcome of the experiments of Traversa and other physiologists, a better understanding has been obtained of the true range of usefulness of belladonna in constipation. It is now used in cases in which we wish to moderate sthenic contraction or spasm of the bowels, whatever the primary or secondary cause of that condition may be. It is not indicated in ordinary constipation, which depends on atony of the bowels. It is useful in lead colic, in the nervous colics, which occur among the residents of tropical countries, in hernia, in ileus, and in spasmodic contraction of the sphincters. It is particularly useful in the constipation of hypochondriacs and nervous women. J. J. C.

"LOCUM TENENS" UNUSUAL IN CANADA.

Swept by ocean breezes, sometimes a missive blows into this office from the British Isles, penned by a youthful medical man just setting out in professional life, asking for advice, and also wishing to ascertain what inducements are held out, and what opportunities present themselves for a man of the highest attainments, and with the usual bunch of letters forming a codicil to his name, and usually the letter has a P.S., asking if we know in the meantime of a good *locum tenens*. To all such inquirers may we offer greetings combined with a word in season. We think it was Bacon who said, "A wise man will make more opportunities than he finds." In

the Province of Ontario the bold hand of the law is raised prohibiting the practitioner from abroad "taking up" practice in Ontario upon his arrival. All such are required to pass a primary and final examination before the Medical Council will grant a license. This law came into force in the spring of 1887. In meaning, if not in letter, the law is the same throughout the Province of Quebec. Now, if the young medical man from the Old Land is willing to "take the time" and go through the mental gymnastics of two stiff "exams," and spend the necessary money, Canada offers a fair field but no favors. The competition is keen, the winters are cold and the summers are hot, and if all the people were sick all the time, of physicians (and hospitals) there are enough and to spare, at least in the cities, and we may say another thing, that if Canadian physicians die of overwork or overpay, their obituary notices have failed to reach this office.

As for a *locum tenens,* we seldom hear of such a thing in this country. When a doctor gets tired and "off his feed" in Canada he goes 'way back somewhere, takes to the woods, fishing or shooting for a couple of weeks; he shuts up his house, and before he leaves he nails a card on his door bearing this legend: "Dr. Blank will return in half an hour." He then telephones the police station and asks for protection for his property, and mentions that *anything* seen (beware, *locum tenens*) prowling around the premises during his absence should be arrested. Then out steps his majesty Dr. Blank with "a free foot and a fellow for it," and standing in the sunlight, care free, he blesses the wide, wide world. The caper of a medical man's life in this new land is a strenuous game, but the game is usually worth the candle if it is played enthusiastically till the candle flickers and the light goes out—and then some good comrade will recount in quiet voice the skilful winnings, and if inadvertently the light that failed is spoken of, someone is sure to say, "when hearts were trumps he always won." If any of our recent correspondents should choose to come and join us in this happy hunting ground, they will find a welcome, and "the peace-pipe ready, lighted for their smoking."

Dr. Geoffrey Boyd will remove from Sherbourne Street to Bloor Street East this month.

Dr. G. H. Burnham will move into his new house on Bloor Street East this month.

EDITORIAL NOTES.

The Hypodermic Use of Cyanide of Mercury in Syphilis.—Among the soluble salts of mercury, the cyanide of mercury is reputed by A. P. Marfan to possess the greatest therapeutic advantages in the treatment of hereditary syphilis. In the late serious forms of hereditary syphilis in children, he considers that internal treatment by the "Sirop de Gibert" is quite inadequate. One must have recourse to subcutaneous injections of soluble preparations of mercury, and he recommends weak, watery solutions of cyanide of mercury; at the same time he gives iodide of potassium internally, as much as 30 grains a day for a child of ten years. The solution which he recommends is prepared as follows:

Distilled water	100 grammes.
Cyanide of mercury	0.10 centigrammes.

Ten c.c. of this solution should contain one centigramme of cyanide of mercury. The injection is made with aseptic precautions into the muscles of the buttock, thigh or back. For an adult we may inject 5 c.c. every day, or 10 c.c. every other day, according to the indications. During treatment great care must be taken of the mouth. L. Muller, Paris, has recently published some memoranda on the same subject. He says that the principal objections to the hypodermic treatment of syphilis by mercurial preparations are largely due to the use of the insoluble preparations, and that the employment of soluble salts has already caused a great advance in this manner of treating syphilis, by reducing the recurrence of untoward results. The very rare accidents which Muller has observed after its use were due to mercury, and not to cyanogen, and did not interfere with the continuation of the treatment. He recommends the following preparation:

Distilled water		100	grammes.
Cyanide of mercury Cocaine hydrochlorate	āā	1	gramme.

A hypodermic injection of 1 c.c. (about 16 min.) every second day equals 1 centigramme of cyanide of mercury, about gr. 1-15. This injection is practically of the same mercurial strength as Marfan's, there being ten times less water. Muller says that it may be used

in all forms of syphilis, that it causes secondary manifestations to disappear, and effects a rapid change in tertiary syphilides, such as rupia and palmar syphilis, in ocular syphilis, and syphilis of the nervous system.

The Radical Cure of Hypertrophy of the Prostate Gland.—In France considerable attention is devoted to the cure of hypertrophy of the prostate gland by prostatectomy. Dr. Albarran reports thirty-one cases, with as many cures. His patients had infected bladders, with retention of urine and, in some instances, pyelonephritis; the mean age of his patients was sixty-two years. He claims that the results of the operations were uniformly good; in all the power of spontaneous urination was regained, and the general condition improved. The most striking results were obtained in cases of complete and chronic retention; eleven out of twelve patients of this class regained complete control of the bladder. As illustrative of the pathological obstruction to urination, which the surgeon is called upon to remove in such cases, a description of a specimen presented to the Society of Anatomy, Paris, Feb. 21st, 1902, is interesting. Dr. R. Proust exhibited a prostate gland removed at the autopsy of a patient, whose bladder had become infected as the result of urinary retention. The prostatic urethra was largely dilated and had become a sort of pocket, communicating with the bladder at a narrowed point, the neck of the bladder. The antero-posterior diameter of the urethra was particularly enlarged; it had attained a diameter of 4 centimetres (1 1-2 inches). Dr. Proust said that from the examination of this specimen two conclusions might be drawn: (1) Internal urethrotomy could not remove the difficulty which caused retention of urine; (2) the obstacle to urination resulted from the compression exercised by the lateral lobes of the prostate gland. The latter were of enormous size, and by pressing one against the other effaced the urethra. In such a specimen one sees how prostatic hypertrophy could have been cured by prostatectomy, and also how the morcellation of the lateral lobes of the prostate gland would have removed almost the only barrier to normal micturition.

Chloride of Adrenalin as a Hemostatic.—Applied to mucous surfaces, chloride of adrenalin rapidly causes a complete ischemia, with a slight anesthesia. Anesthesia can be made absolute if a small quantity of chloretone (1-2 per cent.) is added to the chlor-

ide of adrenalin, or if cocaine is applied or injected hypodermically prior to the application of adrenalin. Taken internally, adrenalin acts strongly on the muscular system, particularly on the muscles of the heart and arteries, causing a marked and rapid elevation of blood pressure. In May, 1901, we published in this journal a very interesting paper by Dr. Murray McFarlane, of Toronto, showing the services rendered by this drug to workers in the special field of the eye, nose and throat. In an operation which he performed at St. Michael's Hospital, Toronto, for the removal of an eye, "not more than ten drops of blood were lost after three minims of a 1-2000 solution of chloride of adrenalin had been dropped into the eye, ten minutes before the administration of the chloroform. The effect of the hemostatic seemed to extend to the deep as well as the superficial tissues, scarcely any hemorrhage resulting when the optic nerve was severed, thus proving the rapid absorption of the active principle." Douglas Macdonagh (*British Medical Journal*, March 15th, 1902) reports that adrenalin solution, 1 in 1000, in boiled water, at a temperature of 100 degrees F., was used successfully in a case of intestinal hemorrhage in a boy, following a fall while playing football. The adrenalin solution was injected into the larger intestine by means of a soft tube. The adrenalin solution had previously been tried internally, but without obvious effect.

Private Hospitals for Consumptives must not be Established in Ontario without Permission.—An Act to amend the Public Health Act was passed at the last session of the Ontario Legislature, providing that hospitals for consumptives are not to be established without permission. Application for permission to establish, maintain, or keep any such hospital or sanatorium may be made to the local board of health of the municipality within two months after the passing of the present Act. If the application is refused, an appeal may be made within seven days to a Board of Appeal, to be composed of the head of the municipality, the sheriff of the county, and the Secretary of the Provincial Board of Health. The decision of this Board is to be final. A fine is to be inflicted for violation of the terms of the Act. This Act does not apply to public general hospitals in which persons suffering from other diseases as well as from consumption are received. Neither is it intended to prevent the establishment of sanatoria under municipal auspices.

The Treatment of Chronic Diarrhea.—In the treatment of idiopathic diarrhea, characterized by frequent and liquid stools, which occur in a continuous or intermittent fashion, good results are said to have been obtained from the use of dilute hydrochloric acid. Bize prescribes this remedy in doses of 10, 15 or 20 drops twice a day, at meals. The dose of acid is diluted with one or two glasses of water. It may also be given in a mixture, with syrup of lemons and water. The results of the acid treatment are often quite astonishing; but it must be continued a long time after the patient is apparently cured. Bize says that 23 out of the 34 patients he treated for chronic diarrhea were more or less rapidly cured; 6 patients continued to pass stools which were soft, but not so liquid as they had been; 4 of the patients had frequent relapses and diarrhea returned as soon as the acid treatment was stopped.

J. J. C.

Promotion for Dr. Armour.—Dr. Donald J. Armour, son of Chief Justice Armour, an old Toronto boy, who was senior demonstrator of anatomy in University College, in London, England, has been appointed senior assistant surgeon of Belgrave Hospital for Children, of the same city. He will still hold his position as demonstrator of anatomy.

A Correction.—Acting upon a request from one of our subscribers, we published among our Items of Interest for April (page 262) a paragraph intimating that a doctor was needed at Castleton, Ont., adding that there was no physician there at all. We are now informed by Dr. A. Crichton that this is wrong, and that he has been there for some time past and has no intention of removing. We therefore desire to make the necessary correction, so as not to do Dr. Crichton even an unintentional injury or at the same time misinform our readers.

The Toronto Orthopedic Hospital.—It is expected that the magnificent new building of the Toronto Orthopedic Hospital at 100 Bloor St. West, will be ready for the admission of patients by August 15th. There are now twenty to thirty workmen busy at the improvements, which, when complete, will make the Toronto Orthopedic Hospital one of the most up-to-date institutions of its kind in America. There will be accommodation for 100 patients. The lot is 100 by 180 feet in depth. The walls in all the wards will be white tiling, the plumbing throughout new, and special attention has been given to lighting and ventilation. We are glad to know that there is every probability of this most worthy institution being entirely free from debt at the date of opening Drs. McKenzie and Galloway deserve the heartiest congratulation on the result of their labors.

Items of Interest.

Western Hospital, Montreal.—Dr. George K. Grimmer has been appointed assistant laryngologist.

Treatment of Lupus.—The donation of $2,000 by the Emperor of Austria for the establishment of an institute for the treatment of lupus is announced.

The Medical Laws of Australia, passed in 1901, admit to practice physicians who have taken a five-year course in medicine before taking a degree. This debars from practice there all graduates of American medical schools.

For the Differentiation of Smallpox from chicken-pox, the London City Council has published a list of medical practitioners, resident in different sections of the city, who may be consulted in doubtful cases of chickenpox, the Council being responsible for the fee.

Coronation Subscriptions.—At a public meeting at Peterborough, England, recently, it was decided to commemorate the Coronation of King Edward VII. by raising by voluntary subscription a sufficient sum to add a new wing to the hospital presented to the city by the late Earl Fitzwilliam.

Compulsory Vaccination for Negroes is to be enforced in Chicago. The health officers have notified employers of negroes to insist upon vaccination, and prosecution is threatened if they do not comply with the law. Of the last group of smallpox cases reported, three-fourths occurred among the colored population.—*American Medicine.*

Honorary Distinction.—Dr. W. W. Keen has been elected honorary president of the First Egyptian Congress of Medicine, which will convene December 19-23, 1902, but will be unable to act because of the demands of his practice. It is reported that this is the first time an American has ever been selected for honorary president of a foreign medical congress.

A New Treatment for Cataract.—A Bordeaux oculist has taken up with remarkable success the treatment of cataract without operations, by the application of baths of salicylate of soda. He has arrested the progress of opacity in the crystalline lens for several years in numerous cases, and is sanguine of success if the treatment is begun at an early stage.—*Phil. Med. Jour.*

Harper Hospital, Detroit.—Harper Hospital, Detroit, Mich., receives $10,000 bequeathed to it by the late Gen. John E. King.

Sir William Hingston.—Sir William Hingston, of Montreal, recently celebrated the fiftieth anniversary of his graduation in medicine, which occurred at McGill University in 1851.

International Congress for the Prophylaxis of Syphilis and Venereal Diseases.—The International Conference for the Prophylaxis of Syphilis and Venereal Diseases is to meet in Brussels, Belgium, September 15 to 20, 1902.

Bridgewater Infirmary.—Colonel W. Barratt, the president of the Bridgewater Infirmary, recently formally opened the new operation room which has been provided by means of a bequest of £300 left for that purpose by the late Mr. George England.

Dr. Judd, Medical Director of the Montezuma.—Dr. Norman W. Judd, for a long time on the editorial staff of the *Journal of the American Medical Association*, but who was obliged to go to New Mexico for his health, has been made medical director of the Montezuma at Las Vegas, Hot Springs.

"Georgia Journal of Medicine and Surgery."—Dr. W. E. Fitch founder and for many years editor and business manager of the *Georgia Journal of Medicine and Surgery,* published at Savannah, Ga., has sold his interest in the publication to his former associate and co-editor, Dr. St. J. B. Graham, who becomes editor and sole proprietor.

American Dermatological Association.—The American Dermatological Association will hold its next meeting for September 18, 19 and 20, 1902, at Boston. The subject for general discussion is to be acne vulgaris. The etiology and pathology are to be presented by Dr. Gilchrist, of Baltimore; the symptoms and treatment by Dr. Fox, of New York.

The Price of Surgical Operations.—The charges for a surgical operation have just been settled by the Seine Civil Tribunal, Paris. Dr. Albarran sought to recover $1,200 from a Nanterre grocer as a fee for performing laparotomy on the latter's wife. The Court considered the charge exorbitant, and reduced the same to $500, stating that it is a medical man's duty to fix his fee in proportion to the patient's means.—*Phil. Med. Jour.*

Samaritan Funds for Indian Hospitals.—There are not many hospitals in India which have Samaritan funds, so that the recent gift of Rs. 10,000 by Messrs. Ralli Brothers to the Medical College and Mayo Hospitals in Calcutta is particularly happy. It is intended to be used for clothing and the distribution of small sums for temporary assistance to poor native convalescents—Hindoos, Mahomedans and Parsees.—*Lancet.*

Notification of Chicken-Pox.—The Bath Rural District Council on March 12th, decided to include chicken-pox in the list of notifiable diseases.

Watertown Hospital, New York.—An Easter gift in the form of a check for $5,000 was received at the Watertown Hospital from Frederick S. Flower, of New York, to endow a free bed in the hospital, to be known as the Mary Elizabeth Flower bed.

St. George's Deaconesses Home and Hospital, on East Sixteenth Street, New York City, was opened April 10th. The building, which has just been completed through the generosity of Mr. J. P. Morgan, contains a hospital on the third floor, complete in every particular, with a sun parlor on the floor above. Here a few deserving poor people and several convalescents will be accommodated.

The Syllabus of Bacteriology.—We have just received a copy of this manual from the Palisade Manufacturing Co., of Yonkers, N.Y. It is certainly a most creditable little publication, is comprehensive, complete, and entirely up-to-date. The publishers deserve the greatest credit for their expenditure in this direction. We would think that such expenditure, however, will in the end prove advantageous, as it is one of the best kinds of advertising, impressive and effectual.

King Edward's Hospital Fund for London.—The Organising Committee of King Edward's Hospital Fund for London has signified its intention to accept an offer which has been made to it with regard to Mr. Percy Godfrey's "Coronation March." This proposal is to the effect that 6d. derived from the sale of each copy of the march shall be devoted to the "coronation gift," and that all sums derived from licenses to perform the march and collections made at concerts shall be given to the same object.

Bequests of the Late R. C. Billings.—Among the larger amounts bequeathed by the late Mr. Billings, of Boston, were $100,000 left to Harvard College, the Massachusetts Institute of Technology, and the Boston Museum of Fine Arts; $50,000 to the Massachusetts General Hospital, New England Hospital for Women and Children, Children's Hospital, and Massachusetts Eye and Ear Infirmary; $25,000 to the Perkins Institute and Massachusetts School for the Blind, and to the Home for Aged Men; $10,000 to the Kindergarten for the Blind, the Boston Lying-in Hospital, Morton Hospital of Taunton, Home for Aged Couples, Boston Home for Incurables, Washingtonian Home, Massachusetts Infant Asylum, and several charities. The late Mrs. S. F. Devlin left $5,000 to the Carney Hospital, Working Boys' Home, Home for Destitute Catholic Children, and Free Home for Consumptives, Boston.—*Phil. Med. Jour.*

Surgeon-Captain Crean, V.C.—The Royal College of Surgeons in Ireland has decided to confer the Honorary Surgeonship on Surgeon-Captain T. J. Crean, V.C., in recognition of his distinguished services in South Africa. He commenced his distingushed services in the College School and obtained the License of the College in 1895. Since the institution of the reward for "conspicuous valour in the presence of the enemy" five Irish surgeons have been awarded the Victoria Cross. Of these, one belongs to the University of Dublin, while the other four are Licentiates of the Royal College of Surgeons in Ireland.—*Lancet.*

Royal Hospital for Incurables, Dublin.—A meeting of the Board of Governors of this hospital was held on March 18th, when six new patients were elected. The hospital is entirely unsectarian and provides accommodation for 212 patients, including separate wards for the treatment of 72 patients suffering from cancer and consumption, in addition to 140 inmates afflicted with various other incurable maladies, all of whom are disqualified for admission into the general hospitals. The average daily number of beds occupied throughout last year was 203, and further financial assistance is urgently needed to reduce a debt of £974.—*Lancet.*

Women Surgeons.—At the annual meeting of the new Hospital for Women in London, attention was directed to the work done by the women surgeons. It was stated that full opportunity had been given for testing their work in all the most important operations, with the result that all prejudice which had hitherto existed against them had been dissipated, and that they now held a sound reputation for ability in this line of work. There had been nearly 1,900 cases of maternity treated at the hospital without one death due to that cause. In the aggregate there were 577 major operations, with a mortality of less than 6 per cent.—*American Medicine.*

An American Hospital in Paris.—Mr Edward Tuck, formerly of Boston and later of New York, but for twenty-five years a resident of Paris, has promised to defray the entire expense of establishing the free American hospital in Paris, announcement of which has already been made and the ground for which has already been bought in the Passy quarter, in one of the most healthful parts of Paris. The hospital is to be named Franklin Hospital, and, besides being built on the latest American model, it will be managed entirely by American physicians and nurses Mr. Tuck will not only defray the expenses of installing the institution, but he will also donate a sufficient fund to maintain it permanently without outside help. Dr. Magnin will be director of the institution. Building will be begun in the spring, but it is not expected that the hospital will be ready for occupancy under two years' time.—*Medical Record.*

Philadelphia Vaccine Physicians.—The regular staff have submitted their bills, which are being paid as promptly as possible from the emergency appropriation of $250,000 for defraying the expenses of the smallpox epidemic. Many of the bills amounted to more than $1,000. The largest paid thus far was $2,368.80 for 5,922 vaccinations at 40 cents each, during the period from July 31 to December 31. The auxiliary corps which was appointed during the epidemic are to receive twenty cents for each person treated, whether the vaccination was successful or not.—*American Medicine.*

A Well-Deserved Victory.—We are informed by the M. J Breitenbach Co., of New York City, that they have come out the victors in their important suit against the firm of Henry Thayer & Co., of Boston, Mass., who it was claimed had copied their style of package, etc., adopted by the plaintiffs years ago for Gude's Pepto-Mangan. It was proved in court that the Breitenbach Co. had been without any doubt the originators of the package, including the color of the wrapper used, and the style of printing on the same. We think that it was but right and just that they should be protected, and we can but congratulate them upon the result of the action.

Verdict Against a Hospital.—At a fourth trial of the action of Miss Helen D. Ward to recover damages for personal injuries from St. Vincent's Hospital, a verdict of $18,000 was rendered recently before Justice Beach in the Supreme Court. Miss Ward had gone to the hospital for an operation, and while recovering from the effects of the anesthetic, a nurse applied a hot-water bag which scalded her. The suit was for $30,000 damages. At the first trial the complaint was dismissed. The jury disagreed at the second. The jury at the third trial gave her a verdict of $10,000. The judgment was set aside on appeal, and the present trial ordered.—*American Medicine.*

Medical Jurisprudence.—*American Medicine* says: The question as to whether a physician may include in his testimony statements made by a patient under his care, was argued recently in the New York City courts. Judge Bartlett gave the ruling "that a trial court cannot properly exclude testimony from a physician or surgeon as to information which he acquired in attending a patient in his professional capacity, unless the information was necessary to enable him to act in that capacity." This decision was the outcome of a case against a railroad company to recover damages for personal injuries received in an accident. A verdict in favor of the plaintiff was reversed because the surgeon on the ambulance which carried the wounded man was not allowed to testify on the trial as to certain statements that were made to him by the plaintiff.

University Honorary Degrees.—The Senate of Toronto University has decided to confer honorary degrees upon a number of prominent men at the Convocation in June. The official list is as follows: The degree of LL.D. will be conferred upon Professor Remsen, Principal of Johns Hopkins University, Baltimore; Christopher Robinson, K.C., Prof. Galbraith, J. J. Foy, K.C., J. P. Whitney, Hon. R. Harcourt, Hon. J. M. Gibson, Dr. Reeve, Prof. Ramsay Wright, Prof. Maurice Hutton; Dr. W. H. Drummond, Montreal; Rev. Dr. Munro Gibson, London, Eng. The degree of Doctor of Music will be conferred upon Prof. F. H. Torrington.

Good for the Emperor of Germany.—The fantastic doctrines known by the name of "Christian Science," with which the name of Mrs. Eddy is associated, continue to occupy the attention of the public, and it is said that they have made more progress, especially among females, than is generally supposed. Believers abound in Potsdam, where the Emperor's summer residence is situated, and many of the nobility and court officials engage in the exercises prescribed by Mrs. Eddy. The Emperor has expressed strong disapproval of these proceedings, and has caused it to be announced that persons who attend the meetings or in any other way encourage the new system will not be admitted to Court.—*Lancet.*

Our Colored Supplement.—Attention is called to the beautifully illustrated (in colors) insert of the H. K. Mulford Co., of Philadelphia, appearing in this issue of the JOURNAL. All lovers of the beautiful will admire the artistic taste displayed in this magnificent specimen of the printer's art. The four pages of colored printing will bear the most careful scrutiny, and will prove of the greatest interest to all of our readers, as showing the wondrous care used by this firm in the manufacture of vaccine and antitoxin, so as to place upon the market a product which is absolutely free from disease germs, and one that can be used with the fullest knowledge that all that science can do has been done to provide serums of only the highest standard.

International Sanitary Congress —The opening session was held at the University of Havana, February 15th, with Major W. C. Gorgas, U.S.A., in the chair. The opening address was made by the president of the Congress, Dr. Santos-Fernandez, of Havana, upon the "Proximate and Remote Importance of the International Sanitary Congress." Eight such conferences have been held in Europe, and one was held in Washington in 1881. Dr. Eduardo Licéaga then read a paper upon the "Convenience of Substituting Quarantine by More Efficient Sanitary Measures." The meetings of the Congress lasted until February 20th. Numbers of other interesting papers were read upon sanitation, hygiene, malaria, leprosy, yellow fever and mosquitoes.—*Phil. Med. Jour.*

Foreign Practitioners in Brazil.—Although this country offers a promising field for the practice of medicine, surgery, and dentistry, the examinations which foreigners must pass before they are entitled to practise are made so severe that the foreign practitioner is almost debarred from following his profession in that country. These examinations, which are held at the medical colleges at Bahia and Rio Janeiro, include languages and other branches not found usually in the medical curriculum, and which itwould probably require two or three years' extra preparation for the majority of the applicants to pass successfully. According to a recent report, the law hereafter is to be even more rigidly enforced, especially in regard to dentists.—*American Medicine.*

The American Congress of Tuberculosis.—The following communication has been received from the Department of State, Washington, D.C., April 10th, 1902. It was addressed to Clark Bell, Secretary-Treasurer American Congress of Tuberculosis, New York. "I have to acknowledge the receipt of your letter of the 5th instant, and to inform you that, in compliance with the request therein made, the British Ambassador has been asked to make known to the Governments of Canada and Newfoundland the value which the American Congress of Tuberculosis sets upon representation by those Governments at the forthcoming session of the Congress of New York City in May next, and the hope of this Government that they may find it to their interest to be represented by delegates."

Death of Dr. W. L. Bain.—The many friends in Toronto of Dr. William Lett Bain will learn with regret of his death, which occurred at Chicago on April 13th, after a short illness. The deceased was well known in Toronto, and had many friends, both in a social and athletic way. He was of a kind, generous nature, and did much to help along his fellow-students. He graduated from Trinity Medical School with honors. In 1885 he served in the North-West Rebellion with the Governor-General's Body Guards as surgeon. On returning from the west he practised in Toronto until 1893, when he went to Chicago, where he continued his practice until the time of his death. He was a son of William Bain, freight agent of the C.P.R. Mr. Bain brought home the remains, and the funeral took place from the family residence, 160 Dunn Avenue, on April 16th.

Plague Riot in Patiala.—On February 19th a somewhat serious disturbance took place in Patiala, which is said to have been occasioned by the compulsory segregation of two cases of plague. Major H. Hendley, I.M.S., medical adviser to the State, and Dr. Nathan Mau, the civil surgeon, were attacked by a large mob with sticks and bricks, and in consequence of being wounded had to take refuge in the branch dispensary. This was then wrecked and set

fire to, but the troops arrived in time and the officers were able to make their escape. The plague-camp near the railway station was also set on fire. According to another account Major Hendley was fastened down by a door, was pelted, and was then carried off and thrust into a mass of filth. He was wounded in nine places—most seriously on the head and on the right leg. These disturbances are not common now, but their recurrence serves to show that the dangers to which plague workers are subject are very real.—*Lancet.*

The Late Dr. F. H. Thompson.—Dr. F. H. Thompson, one of the mostwidelyknown physicians in the United States service, died in Seattle, Washington Territory, March 22nd, of typhoid fever. Dr. Thompson was one of the officers of the coast and geodetic survey steamer *Patterson.* Dr. Thompson was a graduate of Trinity Medical College of this city. He was the seventh and youngest son of Mr. Thomas Thompson, J.P., Rosedale. He was well known, and very much respected by a large circle of friends. He spent the last two years mostly in Alaska, in the parts adjacent to Cape Nome and Sitka, where the crew were engaged making a geodetic survey, and taking soundings for the United States Government. Dr. Thompson's body was brought to Toronto for burial. His brother, Geo. H. Thompson, barrister, of Cranbrook, B.C., reached Seattle two days before his brother's death, and accompanied the body home.

Ontario Medical Association.—The twenty-second annual Meeting of the Association will be held at Toronto, on June 4th and 5th. It is proposed to hold one session of an entirely Clinical character, at which cases of interest will be presented under the headings, Medical, Surgical, Skin, and Diseases of Children. The usual arrangements have been made with the railroads, and patients brought to the meeting will enjoy the same privileges in this respect as members of the Association. The committee are very desirous of securing general co-operation, either by presentation of cases or by the reading of a paper. Members taking part in the programme should forward notes of the cases, or an outline of the paper, to the secretary, Dr. H. C. Parsons, 72 Bloor Street West, Toronto, by May 15th. The usual fifteen minutes will be allowed for the reading of a paper; if too long to be read in this time an abstract may be presented.

American Association of Pathologists and Bacteriologists.—The second annual meeting of the American Association of Pathologists and Bacteriologists was held in Cleveland, March 28th and 29th, in the amphitheatre of the Western Reserve Medical School. Among those who read papers were: Drs. A. J. Lartigau, F. C. Wood, and W. H. Park, of New York; Harvey Gaylord, of Buffalo; G. B. Magrath, W. R. Brinckerhoff, E. H. Nichols, F. B.

Mallory, and W. W. Williams, of Boston; L. Loeb, L. Hektoen, J. and A. P. Ohlmacher, of Chicago; A. A. Bruere and G. R. Charlton, of Montreal; G. N. Stewart and C. A. Hamann, of Cleveland; W. G. McCallum, of Baltimore; A. S. Warthin, of Ann Arbor, and A. O. J. Kelly, J. McFarland, W. M. L. Coplin, A. Stengel, C. Y. White, and Simon Flexner, of Philadelphia. The following officers were elected for the ensuing year: Dr. Ludwig Hektoen, of Chicago, president; Dr. Eugene Hodenpyl, of New York, treasurer, and Dr. Harold C. Ernst, of Boston, secretary.

Easter Greeting.—The President of the Ontario Medical Association, Dr. N. A. Powell, sent out to the profession all over the Province, the following kindly Easter greeting. It was a most thoughtful act upon his part, and, we know, was appreciated by all recipients :

" To be glad of life, because it gives you the chance to love and to work and to play and to look up at the stars; to be satisfied with your possessions, but not contented with yourself until you have made the best of them; to despise nothing in the world except falsehood and meanness, and to fear nothing except cowardice; to be governed by your admirations rather than by your disgusts; to covet nothing that is your neighbor's except his kindness of heart and gentleness of manners; to think seldom of your enemies, often of your friends, and every day of Christ; and to spend as much time as you can, with body and spirit, in God's out-of-doors—these are little guide-posts on the foot-path to peace."—*Henry van Dyke.*

Edinburgh University: Death of the Lord Rector.—By the death of the Marquis of Dufferin, the University of Edinburgh has lost its Lord Rector. To those who were present at the rectorial address which he delivered in the M'Ewan Hall some months ago, and who noted his profound anemia and extreme debility, the Marquis' death has been no surprise. On February 15th the Senatus of Edinburgh University gave expression to its sorrow at the death of the Lord Rector by holding a service in St. Giles' Cathedral at the hour of the funeral. The students of the University, through their representative council, decided to give expression to their deep regret by holding a religious service in the M'Ewan Hall on the afternoon of Sunday, February 16th. This service was largely attended, and was presided over by the senior president of the Students' Representative Council. The meeting was addressed by the Rev. John Kelman, who dwelt upon the brilliant career and the high character of the deceased Lord Rector.—*Lancet.*

Dr. Jos. J. Kinyoun's New Appointment.—The Biological Laboratories of the H. K. Mulford Company at Glenolden, Pa., make another step forward in the progress of work in Serum-

Organotherapy, and in the investigation of infections and contagious diseases, by securing the services of Joseph J. Kinyoun, M.D., Ph.D., late Surgeon of the Marine Hospital Service, and Director of the Hygienic Laboratory of the Marine Hospital Service at Washington. Dr. Kinyoun is widely and favorably known at home and abroad as a sanitarian and scientific investigator, and has served the Government on numerous occasions as special delegate to International Medical Congresses. He is devoted to original research in bacteriology, and in the interests of the Government he has visited the various bacteriological laboratories in this country and in all Europe and Japan. Dr. Kinyoun received special instruction from Profs. Koch, Behring, Pasteur and Roux of Paris and Berlin, as representative of the Government, thus acquainting himself with the progress made in serum-organotherapy and in the investigation of infectious diseases. He is peculiarly fitted for the directorship he now assumes, and under his administration there will be still further advances made in the field of biology as applied to medicine.

The Royal College of Physicians of London and the Royal College of Surgeons of England.—The following resolution of a special committee was unanimously adopted by the Council of the Royal College of Surgeons of England on February 13th, and at an extraordinary meeting of the Comitia of the Royal College of Physicians of London on February 18th, namely: This Committee recommends the two Royal Colleges to consider and develop a scheme for investigation into the causes, prevention, and treatment of cancer, and that for this purpose delegates be appointed by the two Royal Colleges (who shall have power to add to their number) to draw up a detailed scheme. In pursuance of this resolution the following delegates were appointed to draw up a detailed scheme for systematic investigation into the causes, prevention, and treatment of cancer, viz.: As representing the Royal College of Physicians of London: Sir William Selby Church, Bart., President; Sir William H. Broadbent, Bart., K.C.V.O.; Dr. P. H. Pye-Smith, Dr. Whipham, Dr. Payne, Dr. J. Rose Bradford, and Dr. J. F. W. Tatham. As representing the Royal College of Surgeons of England: Mr. H. G. Howse, President; Mr. J. Langton, Mr. H. Morris, Mr. H. T. Butlin, Mr. W. Watson Cheyne, C.B., and Mr. R. J. Godlee.

The First American Medical Journal.—The first American medical journal, *The Medical Repository,* was started in 1797, by Dr. Elihu Hubbard Smith, B.A., Yale, 1786, with whom were associated Dr. Samuel L. Mitchell and Dr. Edward Miller. The publication of *The Medical Repository* was continued until 1824, during which period it was of much service in promulgating medical knowledge and stimulating medical thought and writing

throughout the country. Dr. William H. Welch also notes, in his recent Bicentennial Address at Yale, that the first original separate medical work in this country after the close of the Revolutionary War was the volume published at New Haven in 1788, entitled "Cases and Observations by the Medical Society of New Haven County, in the State of Connecticut." This publication, which contains twenty-six papers reporting cases of disease and autopsies, is an event of importance in American medical bibliography, not so much on account of the intrinsic value of the communications, although several are interesting, but because, in evidence of the newly awakened medical life of the young republic, there is collected here for the first time a series of independent original observations and studies by different American physicians. Nothing of the kind had appeared before in this country. One-third of the contributors to this volume were graduates of Yale.—*Medical Review.*

The Death-Rate of Montreal.—Consul-General Bittinger has sent to the *Public Health Reports* some of the vital and mortuary statistics of Montreal, as gathered from the official report for the year 1900. The most extraordinary item is the death-rate for that city. In 1890 it was 25.46 per 1000 inhabitants. This rate is enormously high when compared with other large cities on this continent. In New York, with its huge congested population, its tenements, and its hot summer climate, the death-rate is only 19.95. In Philadelphia it is 18.26; in Boston 19.06; in Chicago 14.68; in Buffalo 14.19. Even in New Orleans, which is almost a tropical city, it is only 24.94. The civic authorities of Montreal claim that the high death-rate is caused by the heavy infant mortality. But considering the climatic conditions of the city, a high death-rate among infants should not be expected—certainly not higher than in New York or Philadelphia. The sanitary condition of Montreal is said to be impaired by the existence of a large number of cess pools. The *Montreal Star*, commenting on the report, says that Montreal lost a larger percentage of its population in 1900 than any other city on the continent, with the single exception of Savannah, Georgia. In Philadelphia we are accustomed to think of Canada as a region of abounding health, and we cannot fail to be perplexed at this regrettable showing of the Canadian metropolis.—*Phil. Med. Jour.*

The Midwife Bill.—It is noticed that the bill before the British House of Commons, to regulate the practice of midwives, has passed the second reading in spite of considerable professional opposition. The bill provides that, in order to be registered, a midwife must undergo a course of training and pass an examination. England is the only country in which the practice of midwives is not regulated, and such regulation has been opposed by the ma-

jority of the medical profession, because the bill creates a new order of practitioners who can, in the course of their short training, acquire only a very rudimentary knowledge of midwifery, and in whom recognition by the State will cause the public to repose unfounded confidence. We have previously called attention to the gross injustice to the medical profession and, far more important, the jeopardizing of the life of the parturient woman, in permitting her to be cared for at this critical period by an ignorant, unskilled, and unclean individual. The American profession should unanimously condemn the custom of allowing midwives to practise at the expense of the lives and health of mother and child. Stringent laws are enacted in the various states regulating the registration of medical men, and prescribing definite courses of study preparatory to practice, yet our larger cities are the scenes of puerperal infection and infantile mortality which form a gloomy and slimy trail of the woman with unclean personal habits.—*Amer. Med.*

Pathologic Exhibit at the American Medical Association.—The Committee on Pathologic Exhibit for the American Medical Association is anxious to secure materials for the coming session at Saratoga, June 10th to 13th, inclusive. This exhibit was accorded much praise and comment during the sessions at Atlantic City and St. Paul, respectively, where were collected valuable exhibits from all parts of the country. The materials included not only pathologic specimens, but the allied fields, bacteriology, hematology, physiology and biology, were all represented. It would also be desirable to secure exhibits of new apparatus, charts, etc., used by teachers of pathology and physiology in medical colleges. This exhibit has already become a permanent feature of the annual sessions of the American Medical Association, and the committee is desirous of securing its list of exhibits as early as possible, and to this end asks those having desirable materials to communicate with any member of the committee. To contribute to the value of the work, it is suggested that as far as possible each contributor select materials illustrative of one classification, and by such specialization enhance the usefulness of the display. Those lending their materials may feel assured that good care will be given their exhibits while in the hands of the committee, and due credit will be given in the published reports. F. M. Jeffries, 214 East Thirty-fourth street, New York City; W. A. Evans, 103 State Street, Suite 1,403, Chicago, Ill.; Roger G. Perkins, West. Res. Med. School, Cleveland, Ohio, Committee on Pathologic Exhibit, American Medical Association.

The Fourteenth International Medical Congress under the patronage of the King and Queen Regent, will convene in Madrid, April 23-30, 1903, with Dr. Julian Calleja as president, and Dr. Angel Fernandez Caro as general secretary. All governments are

asked to send representatives, and invitations have also been extended to all universities, medical schools, and the principal medical societies of all countries to send delegates. The work of the Congress is to be divided into sixteen sections, as follows: Anatomy, descriptive, comparative, etc.; Physiology, including Biology; General Pathology, including Bacteriology; Therapeutics, including Hydrology and Pharmacy; Internal Pathology; Nervous Disorders, including Insanity and Criminal Anthropology; Diseases of Children; Dermatology, including Syphilography; General Surgery; Ophthalmology; Oto-Rhinolaryngology; Odontology; Obstetrics, inluding Gynecology; Military and Naval Medicine; Public Health and Legal Medicine, including Toxicology. Applications for membership, to which medical practitioners, pharmaceutical chemists, and veterinary surgeons are eligible, are to be sent as early as possible to the general secretary at the Faculty of Medicine, Madrid. The names, titles, qualifications, and addresses of the applicants must be clearly written, and they should specify which section they wish to join. A check on Madrid for 30 pesetas (about $5) should accompany the application. They will receive a copy of the transactions of the section, and will be at full liberty to take part in the business of any other section. Ladies accompanying members may obtain a special card of admission to official entertainments on payment of 12 pesetas. It is requested that all communications respecting the congress should reach the executive committee before January 1, 1903. The languages spoken will be Spanish, French, English, and German.

A Physicians' Life Insurance Company.—We have received occasional letters suggesting the formation of a life insurance company limited to placing policies on the lives of medical men. The thought springs from the facts that so many families of physicians at the death of the head of the family, are left without adequate support; that physicians are good risks; that the guild spirit would support such an organization; that the examiner's fees would be saved, etc. We do not think the advantages and possibilities of good by any means counterbalance the dangers. Although physicians are not the worst risks, they are not by any means what the insurance men call first class, and if only the best risks were chosen this limitation would at once defeat the chief object of the company. It is not generally known that such a special and limited professional company has been long in existence; indeed, the *Presbyterian Ministers' Fund Life Insurance* is the oldest insurance company in America, having been formed May 15th, 1759. It is a feeble organization. Perhaps the greatest danger the proposed organization would run would be the perfectly natural, and to a great extent justifiable, rivalry opposition of all the established life

insurance companies. With some right they would demand of the thousands of physicians whom they employ a loyalty and exclusiveness which would at once prove a tremendous handicap to the young organization. During the past ten years, it must also not be forgotten, many new companies have "gone to the wall" which were started by men of experience and ability and with abundant capital. We hope to see our great national medical organization sometime devise a method for protecting the widows and orphans of its members from want, but at present we do not consider an insurance company limited to physicians would be successful.—*American Medicine.*

The Inability of Medical Men to Inherit from Patients.—It is well known that neither medical men nor pharmaceutical chemists in France have any legal right to receive a legacy from their patients or customers. Dr. Delarue brought before the Chamber of Deputies on February 21st a proposed alteration in the law which ran as follows: "The incapacity laid down by article 909 of the Civil Code is henceforward abrogated as far as concerns physicians, surgeons, and apothecaries." It is extremely improbable that the chamber will pass this alteration in the law, despite the very serious reasons which exist in favor of such alteration, and which were put forward by Dr. Delarue. Very often, he said, the medical man was exposed to the risk of serious illness or even of death and had to be contented with very poor pay, and, in fact, more often than not the only reward he gained by his profession was the consciousness of duty done. His devotion was always being appealed to, and such appeal was never unheard. If the medical man were always to demand remuneration for his work it would be impossible to make certain that the hospital service should be carried on, or that the regulations of the Assistance Publique should be duly complied with. Official salaries were increasing, and also retiring pensions, but there was nothing to help an old physician who had devoted perhaps forty years of his life in the service of his equals. Moreover, the law as it existed at present did the medical men the injustice of apparently suspecting every medical man to be capable of abusing the power which he possessed over his patients for the purpose of getting hold of their money, and of making them carry out their last wills and testaments in opposition to their own wishes. Why did not the law inflict the same disabilities on other professional men, such as barristers or solicitors, who had just as much influence over their clients as medical men over their patients? There was no good explanation why medical men should be thus treated. As for apothecaries, they had nothing to do with the treatment of patients, for their only duty was to send in medicine prescribed by the medical man.—*Lancet.*

The Physician's Library.

BOOK REVIEWS.

The Voyage of Ithobal. By Sir Edwin Arnold, M.A., F.R.G.S., F.R.A.S., author of "The Light of Asia," "The Light of the World," etc. Illustrated by Arthur Lumley. Toronto: William Briggs. 1901.

"The Voyage of Ithobal" will no doubt be much better received by the general public than the author's classical "Light of Asia," which has been used as a literary study for some years in a great many academies. The hero of this romantic voyage is one Ithobal of Tyre, who was selected by Pharaoh on account of his renown as a great sea-captain and an intrepid sailor. Ithobal is accompanied by a female slave named Nesta, whom he had purchased in the slave-market. She saves her master's life on several occasions, and proves of inestimable value as a guide and an interpreter, for she comes in contact with some of her own tribe, from whom she had been stolen, and among whom she was a princess, and sold into slavery. They build three galleys in the Red Sea and sail southward through the straits of Bab-el-Mandeb into the Indian Ocean. Skirting the eastern shores of Africa, they double the Cape of Good Hope, thence northward along the western coast the tired-out little crew, after three years, pass through the Pillars of Hercules into the Midland Sea and arrive with a sadly depleted company at Egypt's welcome capital, where they announce their wonderful and thrilling adventures to Pharaoh. While voyaging along the eastern coast they sail up the Zambesi, and see with wonder the Victoria Falls and hear with surprise of the Victoria and Albert Nyanza Lakes. They pass through the Mozambique Channel southward ever southward, with the sun on the right side. Their ranks sadly thinned by the miasm, savage animals, poisonous reptiles, and merciless savages, they turn with joy around the Cape of Good Hope and sail northward.

> "Ithobal, reaching the world's end,
> A spacious harbor doth befriend;
> Southward no more, but northward now
> Turneth his storm-tossed vessel's prow."

Incidentally the author describes the okapi of Sir H. H. Johnston as an animal, "purple with cream, having striped shanks,

dropped flanks, and ass's tail, and four soft horns." And the gorilla, the man-ape, "fashioned wholly as a man, a nude flat face, small ears, a hairy crown, nostrils of blackamoon, and human ways, short-legged, with mighty loins and arms that reach to touch his shin as he doth walk erect, for walk he doth, with woodland staff in palm, most like a savage forester," etc. The author has written us a wonderful story, teeming with the most interesting description of scenes by sea and land, of thrilling adventures, of wonderful peoples, of strange animals that knew no fear, of man and of natural phenomena, which often filled his superstitious followers with fear, almost to the points of mutiny. When we think of the stupendous task of sailing around the vast continent, in small open vessels, propelled the greater part of the way by means of oars, we cannot but admire these ancient mariners who had nothing to guide them save the satellites or natural phenomena, learned by long experience in their simple, nautical wandering. Sir Edwin Arnold has written a wonderful book, and no man can read it without being impressed with a feeling of veneration for the author.

A. J. H.

Progressive Medicine. A quarterly Digest of Advances, Discoveries, and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia, etc., assisted by H. R. M. Landis, M.D., Assistant Physician to the Out-Patient Department of the Jefferson Medical College Hospital. Vol. I., March, 1902. Philadelphia and New York: Lea Brothers & Co.

The contents of Volume I. are : The Surgery of the Head, Neck and Chest, by Charles H. Frazier, M.D.; Infectious Diseases, including acute rheumatism, croupous pneumonia and influenza, by Frederick A. Packard, M.D.; the Diseases of Children, by Floyd M. Crandall, M.D.; Pathology, by Ludwig Hektoen, M.D.; Laryngology and Rhinology, by St. Clair Thomson, M.D., M.R.C.P. (Lond.), F.R.S.C. (Eng.); Otology, by Robert L. Randolph, M.D., and the index.

We are pleased to note the many advantages of this digest. Being a quarterly, it easily keeps up with the procession, conveying to its readers, with brief delay, and in an elegant and accurate form, some of the never-ending novelties of medical science. As it is a reproduction of living medical literature, it is presented to the reader in categories, some of which are mentioned above. Other special articles dealing with different subjects may be looked for in succeeding quarterly numbers.

Each monograph, although including references to the different writers and workers who have made recent contributions to the subject-matter, is presented as the production of one mind,

and is, therefore, characterized by uniformity of style and diction. "Progressive Medicine" is certainly a labor-saving device, by which a physician may keep himself abreast of advances of discoveries in medical science at a small expense, and with a most unusual saving of time and trouble. The work is well printed on good paper, and is a great credit to the publishers. J. J. C.

Syphilis: A Symposium. Special contributions by L. Duncan Bulkley, A.M., M.D., Follen Cabot, Jr., M.D., Louis A. Duhring, M.D., Prof. Fournier, M.D., Eugene Fuller, M.D., E. B. Gleason, M.D., William S. Gottheil, M.D., Robert H. Greene, A.M., M.D., Norman B. Gwyn, M.D., Oneille Horwitz, M.D., Edward L. Keyes, M.D., G. Frank Lydston, M.D., D. J. McCarthy, M.D., Thomas G. Martin, M.D., Boardman Reed, M.D., A. Robins, M.D., and J. D. Thomas, M.D. New York: E. B. Treat & Co., 241-243 West Twenty-third Street. 1902.

With such an array of syphilographers this disease, about which more has been written than any other disease, with the exception, probably, of tuberculosis, syphilis, in its latest management, cannot but be scientifically written up. There are no new remedies mentioned, except chlorate of potash, which has been found a useful intermittent remedy, with the old reliable mercury and potassium iodide. A number of questions, with their answers, have been added, which questions would be well to be thoroughly weighed by every practitioner. These questions are: (1) What is the safest course in the diagnosis of syphilis? (2) Has the range of remedies in syphilis increased in recent years? (3) What is your opinion as to the secondary period of syphilis having been skipped in cases which develop severe tertiary lesions without a history of precedent active syphilis? (4) In how far should the physician assume the responsibility in sanctioning matrimony in syphilitics? (5) What is your opinion as to the transmissibility of syphilis in the progeny of tertiary syphilitics? (6) Do you know of any case in which unequivocally syphilitic fathers have procreated children who have remained healthy? These questions are fairly discussed and frankly answered, and the whole forms an interesting subject for any general practitioner to make himself acquainted with. A. J. H.

The International Medical Annual: A Year-Book of Treatment and Practitioner's Index. 1902. Twentieth year. New York: E. B. Treat & Co., 241-243 West 23rd Street. Chicago: 199 Clark Street. Price, $3.00.

This work contains 661 pages of reading matter, and a general index of 16 pages. It is divided into three parts. The first part,

containing 80 pages, is a dictionary of materia medica and therapeutics; a review of therapeutic progress for 1901, by William Merrill, M.D., F.R.C.P., together with an article on toxins and antitoxins, by Prof. Joseph McFarland, M.D., Philadelphia. Part Second, containing 571 pages, is a dictionary of medicine and surgery, by many writers. Part Third contains 11 pages on Sanitary Science, by Joseph Priestley, M.D., D.P.H., Medical Officer of Health, Borough of Lambeth, London, Eng.

Readers of medical literature, who are not acquainted with the "International Medical Annual," will be surprised at the number and variety of the articles, some short, others long, which succeed one another in the main part of the work. The articles are well written by competent men, each of whom, in dealing with his special subject, shows the changes, advances and discoveries made in it during the past year.

Needless to say, practitioners who have availed themselves of the work in former years will recur to it again. It is a sort of *multum in parvo*, and saves a world of time and trouble when one wants to know the latest views on any medical or surgical subject. After a few years these volumes will help to form the nucleus of a very respectable library of modern medicine. Among the illustrations there are twenty-five plates, fourteen charts, and sixty-five diagrams. To former readers, and to those who have not tried it, we bespeak a cordial welcome for the "International Medical Annual" of 1902. J. J. C.

The American Year-Book of Medicine and Surgery for 1902. A yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Arranged, with critical editorial comments, by eminent American specialists, under the editorial charge of George M. Gould, A.M., M.D.. In two volumes—Volume I., including *General Medicine*, Octavo, 700 pages, illustrated; Volume II., *General Surgery*, Octavo, 684 pages, illustrated. Philadelphia and London: W. B. Saunders & Co. 1902. Per volume, cloth, $3.00 net; half morocco, $3.75 net. $6.00 a set. Canadian Agents: J. A. Carveth & Co., Toronto.

We took occasion a year ago to compliment the publishers upon the wisdom displayed in publishing "The American Year-Book of Medicine and Surgery" in two volumes. We are glad to find that they have pursued the same policy for 1902, as there is very little doubt that many will purchase the work if they can confine themselves to buying the one volume in which they are most interested, each volume being in itself complete.

It will not take long for any reader to come to the conclusion that the material presented in the Year-Book for 1902 is just as select as it well could be. The work can be said to be composed of a digest of all of the most recent literature on the subjects of medicine and surgery for the past twelve months. The editor has evidently used great care in his selections, allowing nothing whatever to appear in the pages of his work but what can be accepted without hesitation as established fact. We notice that Dr. J. Chalmers Da Costa takes the place on the editorial staff formerly occupied by Dr. W. W. Keen. There is just one point which we might suggest for future issues, viz., a greater number of illustrations throughout the text. W. A. Y.

Practical Medicine Series of Year-Books. Vol. III. *The Eye*—By Casey A. Wood, C.M., M.D., Professor of Clinical Ophthalmology, Medical Department University of Illinois; Professor of Ophthalmology, Post-Graduate Medical School; Ophthalmic Surgeon to St. Luke's Hospital, Chicago, etc.

The Ear—By Albert H. Andrews, M.D., Professor of Otology, Chicago Medical School; Oculist and Aurist to the German-American Hospital, Chicago; Oculist and Aurist to the Chicago, Rock Island and Pacific R. R., etc.

The Nose and Throat—By T. Melville Hardie, A.M., M.D., Clinical Professor of Laryngology, Rhinology and Otology, Medical Department University of Illinois; Professor of Laryngology, Post-Graduate Medical School; Attending Laryngologist to St. Luke's Hospital, Chicago, etc.

This volume consists of 346 pages, including Index and Table of Contents, 130 pages being devoted to the Eye, 88 to the Ear, and 103 to the Throat and Nose. There are several cuts in each department. While all good journal articles could not be noticed, the authors are to be congratulated on their good selections. The best possible use has been made of the literature of the last eighteen months, and the result is a volume that will be found of use alike to the specialist and the general practitioner. The price of this volume, $1.50; of the series of ten volumes, $7.50. Published by the Year-Book Publishers, 40 Dearborn Street, Chicago, Ill.

W. J. W.

A Practical Manual of Insanity for the Student and General Practitioner. By D. R. Brower, M.D. 426 pages. $3.00. Philadelphia: W. B. Saunders & Co. Toronto: J. A. Carveth & Co.

A note of expostulation may be observed in the review columns of the better class of American medical journals which has of late become more marked than ever, in regard to the tireless reiteration of accepted facts in new and uncalled-for publications. The commercial activity of the medical publisher is very far in excess

of the scientific activity, as great as that is, in the fields of medical research; and each day marks the appearance of some needless volume, written to order and printed to sell.

The present production is an example of this class of "goods," and its existence can only be explained upon the premise that every physician who has ever lectured on Nervous and Mental Diseases in a medical school is required by fate to write a book on the subject. The author is not a resident physician in an institution for the insane; and the literary character of the book can be gathered from the first chapter, which is devoted to a personal and confiding little outflow of "table talk" upon the difficulties of writing definitions and books in general, and (presumably) this book in particular.

Germany and France have produced several almost perfect text-books upon Psychiatry very recently. In England there is Savage, Clouston, and Bevan Lewis, and in America Stearns and Berkely, all presenting the latest phases of the subject. There is hardly, therefore, any opening at the present time for another book upon the subject. E. H. S.

Manual of Childbed Nursing—With notes on Infant Feeding. By Charles Jewett, A.M., M.D., Sc.D., Professor of Obstetrics and Diseases of Women in the Long Island College Hospital. Fifth edition. Revised and enlarged. New York: E B. Treat & Company, 241-243 West 23rd Street. 1902.

This manual, which was originally prepared for the Training School for Nurses at the Long Island College Hospital, has been rewritten, and in this edition the entire contents have been revised and much new matter added. The object has been not to furnish a text-book, but rather to aid the nurse in remembering the more important practical teachings of the hospital training. Not only is this work of the highest benefit to nurses, but it is an admirable book for every mother who has the care of the lying-in room. One of the most useful chapters in this little brochure is on the prevention of childbed infection, and is described very fully, and might not prove fruitless reading for many practitioners at the present day. There is also a chapter on Artificial Infant Feeding, and one on the Management of Birth in the Absence of a Physician.

A. J. H.

A Hand-Book of Appendicitis. By A. J. Ochsner, M.D., Professor of Clinical Surgery, College of Physicians and Surgeons, Medical Department of the University of Illinois; Surgeon to the Augustana Hospital, etc. Pages 182. Illustrated. Bound in red cloth. Price, $1.00 net. Chicago: G. P. Engelhard & Co. 1902.

Some American surgeon has said, "He must be a blockhead

who cannot diagnose what a lump in the right groin, midway between the umbilicus and the anterior superior iliac spine, is; but there are some appendices which seem to like excursion trips occasionally. Dr. Ochsner has written one of the most practical little books on appendicitis that I have ever read, and I think every surgeon who operates in these often complicated cases will be much benefited by reading the literature which the author has collected here, together with his vast personal experience as an operator.

Works of practical experience such as this cannot but prove of the greatest benefit, and such men as Deaver, Mynter, Fowler and Morris, of the United States; Sonnenburg, of Germany; Dieulafoy, of France, and Lennander, of Sweden, have written works upon this subject which have been especially valuable in bringing the medical profession to a proper appreciation of this disease. Too much cannot be written on this subject. A. J. H.

Genito-Urinary Diseases and Syphilis. For Students and Practitioners. By Henry H. Morton, M.D., Clinical Professor of Genito-Urinary Diseases in the Long Island College Hospital; Genito-Urinary Surgeon to the Long Island College and King's County Hospitals and the Polhemus Memorial Clinic, etc. Illustrated with half-tones and full-page colored plates. Price, extra cloth, $3.00 net. Philadelphia: F. A. Davis Company, Publishers, 1914-16 Cherry Street.

The number of works published during the past few years upon the subject of genito-urinary surgery goes but to prove the increased interest taken in this study. This is doubtless due to the advances made and the strides taken by those who have made this branch a specialty. Dr. H. H. Morton is well fitted to write a book upon genito-urinary diseases, his reputation in this line being sufficient to secure a large sale. His work is a very able presentation of the subject in its different phases, and will be found by all to be ably written and concise, and touches upon all the more modern methods of treatment so far adopted.

The Drug Habits and Their Treatment. A Clinical Summary of some of the General Facts Recorded in Practice. By T. D. Crothers, M.D., Superintendent Walnut Lodge Hospital, Hartford, Conn.; Professor Diseases of the Brain and Nervous System, New York School of Clinical Medicine. Pages 96. Price $1.00 net. Chicago: G. P. Engelhard & Company. 1902.

Is the so-called "drug habit," which usually means morphia or cocaine, on the increase? I can recall in the last twelve years half a dozen medical practitioners, and an equal number of lawyers, who have gone down under this terrible octopus—young men

who were the most brilliant and promising in their chosen profession. In years now happily gone by it was a common occurrence to know of medical practitioners who were addicted to alcoholics, but I think this has been replaced, not to an equal extent by any means, by a craving for narcotics. Brain workers take morphia for its stimulant effect as well as to quiet nerve and brain fatigue. Cocaine is taken for the mental exhilaration it produces. Dr. Crothers has given us a most valuable little book of ninety-six pages on the treatment of these drug habits, and is one of exceeding interest, and his larger work upon which he is now working will be gladly welcomed. A. J. H.

Morphinism and Narcomania from Opium, Cocain, Ether, Chloral, Chloroform, and other Narcotic Drugs; also the Etiology, Treatment, and Medico-legal Relations. By T. D. Crothers, M.D., Superintendent of Walnut Lodge Hospital, Conn.; Professor of Mental and Nervous Diseases, New York School of Clinical Medicine, etc. Handsome 12mo of 351 pages. Philadelphia and London: W. B. Saunders & Co. 1902. Cloth, $2.00 net. Canadian Agents: J. A. Carveth & Co., Toronto.

There is hardly a subject in medicine which we think requires greater study on the part of physicians than that of morphinomania and allied diseases. It is a bare fact indeed that during the past ten years there has been a most alarming increase in morphinism on this continent, and, alas, it has become too common among members of the profession. This is indeed a sorry admission to have to make, but it is too true. Who is there among us who does not know of a case of narcomania of some form among his own friends who are practitioners of medicine? Doth it not, therefore, behoove us to enter into the study of the disease, if disease it can be termed, and try to solve its successful treatment? Dr. Crothers' work is most timely, and it merits the approval of all, not only on account of the prevalence of the condition, but because the book is exceedingly well written, and the subject treated in such a manner as to make its study interesting rather than dry.

Johnson's First Aid Manual—Suggestions for Prompt Aid to the Injured in Accidents and Emergencies. Illustrated. Edited by Fred. B. Kilmer. Published by Johnson & Johnson, New Brunswick, N.J. Copyrighted.

This little manual contains a lot of useful hints worthy of perusal as to treatment in accident cases, etc. It also calls attention, secondarily of course, to the value of Johnson & Johnson's various preparations, and makes a very good form of advertisement for the firm.

A Manual of Ophthalmoscopy. For Students and General Practitioners. By J. E. JENNINGS, M.D. (Univ. of Penna.), Author of "Color-Vision and Color-Blindness," etc.; formerly Clinical Assistant Royal London Ophthalmic Hospital, London: Member of the American Medical Association, etc. With 95 illustrations and 1 colored plate. Large 12mo. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1902. Price, $1.25 net. Canadian Agents: Chandler & Massey Limited, Toronto and Montreal.

This manual is an elaboration of a series of lectures delivered at the Beaumont Hospital Medical College of St. Louis, and gives evidence in its many practical points and hints of being the product of experience, and not merely of the desire to write a book. It is designed for students and general practitioners, but unlike many such books it can be recommended to them. J. M.

Some Thoughts on the Principles of Local Treatment in Diseases of the Upper Air Passages. By Sir FELIX SEMON, M.D., F.R.C.P., Physician-Extraordinary to His Majesty the King; Royal Prussian Professor of Medicine. London: Macmillan & Co. 1902. 2/6 net.

These are two lectures delivered by Sir Felix Semon at the Medical Graduates' College and Polyclinic in London, and published in the *British Medical Journal* in November, 1901. Sir Felix—admittedly the greatest authority of the day, European or American—holds strong views as to the rage for operating which seems to animate many rhinologists and laryngologists. These views he expressed freely, and there resulted as pretty a row as one could imagine. The amiable Mr. Lennox Browne scented the conflict from afar and rushed in headlong. Altogether the controversy is most interesting and instructive.

Every practitioner should read this brochure, and learn that there is necessary to be a "specialist" something more than the possession of a cautery and the assumption of a name. J. M.

The Cosmopolitan for April.—"What Women Like in Men," "What Men Like in Women," and "Husbands and Wives," are the titles of a series of very interesting papers by Radford Pike, the third of which appears in *The Cosmopolitan for* April. The same number of *The Cosmopolitan* treats of Prince Henry's visit, with a series of beautifully printed photographs, under the title of "A Clever Emperor and a Confederation of Nations." F. Hopkinson Smith, Israel Zangwill, Bret Harte, and Maarten Maartens are among the other contributors to this number, which is unusually good in fiction.

The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTEREST OF MEDICINE AND SURGERY

VOL. XI. TORONTO, JUNE, 1902. NO. 6.

Original Contributions.

DUNCOMBE VS. THE MUTUAL LIFE INSURANCE COMPANY OF NEW YORK.

BY ARTHUR JUKES JOHNSON, M.B., M.R.C.S.(ENG.), TORONTO.

THIS was an action brought by Mrs. Duncombe to recover the value of an insurance on the life of her husband, Dr. Trueman Duncombe for $5,000, payment having been refused on the ground of "fraud." The facts of the case, as revealed by the evidence, were as follows:

Dr. Trueman Duncombe, a gentleman forty years of age, one of the medical examiners for the defendant company, and holding a number of insurances in the company, made an application for a $5,000 policy on his own life, dated on the 11th day of July, 1901. On or about that day, he had been examined for the Federal Life Insurance Company by their examiner at St. Thomas. This gentleman was not the examiner for the Mutual Life Insurance Company, of New York, but as Dr. Duncombe sent in his examination to be accepted by them, after some inquiry they accepted it, although Dr. Lawrence, of St. Thomas, had examined Dr. Duncombe for them on former occasions.

In the report of the examination signed by this gentleman, and sent in to the company by Dr. Duncombe it was stated that the examination had been made on the 25th day of July that a urinalysis had been made, and that the urine so examined had been passed in the presence of the examiner. It detailed the height, weight, and measurements of deceased, and recommended him as a first-class risk. The insured also certified himself to be in good health. Upon these statements a policy was issued by the Mutual Life Insurance Company of New York, on the 7th day of August,

which the insured received on the 14th day of September, 1901. Dr. Duncombe died suddenly on October 2nd, 1901, and, although the company paid his other claims, they refused to pay this one for the reasons before mentioned. In the course of the trial it was shown, in regard to the application and medical report upon which the policy was granted, which was signed by the examiner, and dated July 25th, 1901, that on that day no medical examination had been made. As a matter of fact, the examiner had not even seen Dr. Duncombe on that day. What really occurred was that Dr. Duncombe had filled up the first part of the medical examiner's report himself, and had then sent the papers to his professional friend, who filled up the balance, trusting to his recollection of the former examination made for the Federal for his facts. This, it would seem, might have been done, had the first examination on July 11th been made for this company. The fact, however, that the answers given to the two companies varied somewhat, led to a careful cross-examination by the counsel for the defence. In the midst of this the Judge asked how extensive an analysis had been made for the Federal on July 11th. The answer was that no urinalysis had been made at any time. It was further shown that on July 27th the report of the medical examination was posted to the company by the insured, who, on the same day, had consulted Dr. D. McLarty, of St. Thomas, as to his health. Dr. McLarty found him suffering from shortness of breath, pain under his left shoulder blade, and "an increased area of cardiac dulness," and his opinion was that he was suffering from pericarditis, with considerable effusion. Rest was advised. Other evidence showed he had complained of this pain in May, and continued to complain of it until his death. Early in August he went for a few days to Waterford. Here he was examined by another medical man. On September 2nd he came to Toronto, and was examined with the X-rays at Toronto General Hospital. On the evening of his death, October 2nd, 1901, he became suddenly weak and had to be laid down. There was no evidence of convulsion, no struggling, but when seen by Drs. McLarty and Van Buskirk a few minutes after the attack came on he was unconscious, breathing heavily with suffused face, and a little froth about the lips. The pulse was weak, and disappeared shortly afterwards. Death occurred in about half an hour after the attack came on.

There was no autopsy, but when the undertaker came to prepare the body for burial he noticed a swelling, raised up about three-quarters of an inch, "to the left side of the lower part of the sternum." Raising a fold of the abdominal wall, half way between the sternum and the umbilicus, he thrust the point of a long trocar through it, passed it eight inches upward and toward the left arm-pit, and drew off one and three-quarter pints of dark red

blood, which was clear, and clotted in the bottle. As this came away the swelling disappeared.

The question, as framed by the counsel for the defence, given to the medical men who had examined deceased, was:

"Taking the facts of the history of the pain as shown, assuming it to have gone back even beyond the 27th of July, the deadness about the heart which was found by Dr. McLarty at that time, the shortness of breath, the fact that he had to wait until his heart got quiet, as his wife said, before he could even talk to her, then the sudden death, and the blood being drawn from the chest afterwards, what would you say he died of? To this they all answered: "most probably aneurism."

In charging the jury, the learned judge explained what the duty of the jury was in these cases. It was a mistaken idea to think that the jury should say who were to succeed or fail in this action. Nor should they be told what the law was. If they were to attempt to decide the main issue, not knowing all about the law, they might make a mistake, and it could not be rectified. Their duty was to find what the "facts" of the case were, and to answer certain questions of fact according to the evidence. In reviewing the case, he drew attention to the fact, "that deceased had seen Dr. McLarty on the 27th day of July, probably after he had posted his application to New York, as it was on this day that the application completed on July 25th, had been posted. He asked the jury to say whether deceased was in good health on that day? "If not, did he know it?" He went to Waterford on a doctor's advice, and was examined by a doctor there. "Why?" "Certainly not because he was in good health." He was examined early in September in Toronto, on account of pain, the cause of which was not discovered. Dr. McLarty did not consider deceased fit for insurance on July 27th, and the doctor who examined him in Toronto said he would not have passed him on September 2nd or 3rd. Coming to the medical examination of deceased by the doctor who examined him, on July 11th, it was pointed out that the proceedings were at least irregular. Both the examining doctor and deceased knew what this company required, and they both concurred in signing a document that they knew was not true.

The examination was made on July 11th, and dated July 25th, This they knew was irregular.

They both knew that the urine was to be examined; they both knew that this was not done. They both knew that the answers should all be in the handwriting of the examiner. They had both disregarded this. No measurements had been made. No examination of the chest or liver had been made. No urinalysis had been made; no urine had been passed in examiner's presence. No specimen of urine had been obtained. The examiner had never even seen any. To all of these questions answers had been given

without any foundation of fact, and both the deceased and the medical examiner knew it.

The force and effect of the medical evidence was that death was probably due to a disease of a blood vessel, and a rupture of the same, and that this diseased condition must have been of some months' standing. The following questions were given to the jury:

1. Was the insurance in question obtained by the fraud of the insured Dr. Duncombe?

2. Was the insured, Dr. Duncombe, at the time he sent in the application for such insurance, on the 27th July, 1901, in good health?

3. If not, did he then know he was not in good health?

4. Did he know that he was not in good health on the 7th day of August, 1901?

5. Did he know it on the 14th day of September, before receiving the policy?

6. And if so, was such knowledge a fact material to the contract?

7. Did he really believe at the time of sending in his application on the 27th July, 1901, that he was in good health?

8. Did he so believe on the 7th August?

9. Did he so believe on the 14th September, 1901?

10. If not, was his real belief a fact material to the contract?

11. Were the misstatements in and in connection with the Medical Officer's report in the application in question material to the contract?

In explaining these questions the jury were told that it was fraud to "know and conceal" or to make false statements about matters that were of consequence to the company; that if the applicant knows that he is not in good health, such knowledge is a fact of consequence to the insurance company, and they should know it. As to the misstatements being material to the company and the contract, they were asked to consider why the statements were required. Was it likely that the questions set down on the application were of no consequence? Are not the answers given to the questions in the application made for the very purpose of enabling the company's officers to decide whether an application should be accepted or rejected?

Questions as to "conditions" together with a large number of legal points, were carefully gone over by the counsel for the insurance company, Mr. Frank Arnoldi, K.C. From his argument it appears that, under the Ontario Insurance Act, "conditions" of a policy to be available as a protection to an insuring company, must be "material" to the contract; that term meaning that they must be of such importance as to have affected the making of the contract had the truth in respect of them been known at the time it was entered into, and this question of materiality under the Act

is to be left to the jury, but this does not apply to such misrepresentation or fraud as would vitiate the contract, irrespective of any condition imposed by the terms of the contract; that is to say, supposing the contract to be without any conditions. In this case there was no condition imposed as to the truth of the medical report by the letter of the contract, but nevertheless the misrepresentation and deception of sending in the untruthful medical report—untruthful to the knowledge of the assured, who sent it in—was a fraudulent act vitiating the contract, to which the Insurance Act does not at all apply.

His contention was, that the facts as to the misrepresentation in regard to the medical report not being disputed in the evidence at the trial, it was competent to the Judge to instruct the jury to bring in a verdict as in an ordinary action on the contract in the defendants' favor, or he might have discharged the jury, and entered judgment for the defendant on that ground alone.

The jury considered the case for some hours, and upon their returning answers to the questions given by the Judge, the Court declared that Mrs. Duncombe's action against the Mutual Life Insurance Company of New York "dismissed with costs."

THE TREATMENT OF SCIATICA.*

BY VERNON A. CHAPMAN, M.D.,
Late Surgeon Holland-American SS. Line.

Sciatica is a painful affection, and one of the most difficult to control. Innumerable remedies have been advocated as cures, by physicians, their great number being an indication of their inefficiency, while surgeons have not only cut down upon the nerve at some portion of its course in the thigh, seized and stretched it, but even cut down upon the spine, and exsected the posterior roots of the affected nerve.

The different conditions described in the text-books as causes giving rise to this trouble are many, such as pelvic tumors, bony and visceral calculi of large size, aneurisms, accumulations of feces in the bowel, tumors along the course of the nerve outside of the pelvis, etc., all of these acting mechanically by pressure on the nerve. Then there are such causes assigned as gout, rheumatism, lumbago, hip disease, contiguous foci of suppuration, syphilis, etc., all predisposing to inflammation. The exciting cause, in most instances, is exposure.

Aside from these causes, any individual one of which can generally be readily determined when it exists, there are many obscure cases apparently arising from no predisposing cause whatever. A large majority of these cases are, I believe, caused by

* Written specially for The Canadian Journal of Medicine and Surgery.

contraction—contraction of muscles, and of the nerve itself—and these contractions in many cases occur in the following manner:

Men of sedentary occupations sit all day with the legs in a state of flexion. When they walk they do so in a half-hearted manner, with knees half bent. When they go to bed for sleep they still lie with the thighs drawn up. A good healthy stretching of the legs is never attempted. What wonder, then, that the muscles of flexion become contracted, and also the great sciatic nerve itself. Its sheath adheres to it, and literally "grows to its shell." Then comes the sudden exposure—a cold current of air, a passing shower of rain, wet feet or something of the sort, and sciatica makes its appearance.

Under "treatment" there has been given some twenty-five different remedies for internal administration, and among surgical measures the following: Turkish baths, blisters, actual cautery, acupuncture, aquapunctura, galvanism, ether spray, guaiacol, deep injections of cocain, of morphia, of apomorphin, of chloroform, and solution of osmic acid, hot poultices, salicylic acid, paste, intense cold and intense heat, applied locally along the course of the nerve. Some text-books stop here for want of space. Others wind up by informing us that "nerve-stretching may be tried as a last resort."

It is to this nerve-stretching (neurectasy) that I wish to call attention. Judicious administration of internal medicine, when indicated, is always proper, and I do by no means condemn it. It is my opinion, however, and experience does but more firmly convince me, that if this "last resort" was more often chosen as the "first resort" the other numerous remedies would not need to be so frequently employed. By "nerve stretching" I do not mean the operation of cutting down upon the nerve, but the stretching of the nerve by manipulation.

If one for a moment studies the anatomy of the parts, and traces the course of the great sciatic nerve, and its relation to adjacent structures, the matter at once becomes apparent. The great sciatic nerve supplies the muscles of the back of the thigh and those of the leg and foot. It is the largest nervous cord in the body, measuring three-quarters of an inch in breadth, and is the continuation of the lower cord of the sacral plexus. It passes out of the pelvis through the great sacro-sciatic foramen, below the pyraformis muscle. It descends between the trochanter major and the tuberosity of the ischium, along the back part of the thigh to about its lower third, where it divides into two large branches, the internal and external popliteal nerve. As the nerve descends along the back of the thigh it rests at first upon the external rotator muscles, while lower down it rests upon the adductor magnus, and is covered by the long head of the biceps.

These external rotator muscles are the gemellus, inferior and superior, obturator, externus and internus, and quadratus femoris. These muscles stretch from the pelvic bones to the femur, thus completely bridging between the ischium and great trochanter of the femur, forming a firm bed upon which the great sciatic nerve rests.

By studying the anatomy and mechanism of these parts, it can be readily seen that great force can be exerted upon the great sciatic nerve by using the leg and thigh as a lever, and the aforementioned cushion of muscles as a fulcrum. Thus by rotating the thigh inward and slightly abducting, the external rotators are put upon the stretch, also the adductor magnus muscle. Then, by firmly flexing the thigh upon the body, with leg extended and foot flexed, the great sciatic nerve is stretched over the firm spine of the ischium and the tense muscles of external rotation before described. This mode of procedure acts powerfully upon the proximal portion of the nerve, even drawing upon the spinal cord, which is the explanation of the phenomenon known as Kernig's sign in spinal meningitis.

If the seat of pain in sciatica is situated at some point along the lower course of the nerve, a different method of manipulation gives better results, as it is then the lower portion of the nerve upon which we wish to exert the most power. In this case the following method should be employed: Extend the foot upon the leg, flex the leg upon the thigh, and flex the thigh upon the pelvis. The extension of foot and flexion of leg permits the nerve to relax to its fullest extent from its distal end. As the thigh is then flexed, the relaxed nerve glides smoothly over the external rotator muscles towards its proximal end, on account of the lax condition of the lower or distal portion of the nerve. Now, when thigh is fully flexed, the nerve is clasped firmly between the external rotator muscles on one side (the thigh being slightly rotated inward) and the pyraformis and gluteus maximus muscles on the other side of the nerve. Now slowly, but firmly, extend the knee. This takes up all remaining slack of the nerve in its lower course, and at the same time the biceps and semi-tendinous muscles firmly clasp the nerve against the adductor magnus and other adjacent structures.

Now, with thigh flexed and leg extended, firmly flex the foot upon the leg. Thus the posterior tibial and plantar nerves are stretched firmly over the internal malleolus. By carefully studying the anatomy of the parts and the mechanism of the limb, the manipulations may be performed in such a manner as to exert the tension upon nearly every individual portion of the nerve at will. Owing to greater width of the pelvis, more tension may be exerted upon the great sciatic nerve in the female by these manipulations than in the male. That these manipulations do stretch the nerve

there can be no doubt. The patient will always locate the pain caused by stretching at the same spot where he located the pain of the sciatica. Almost every patient will exclaim, "That touches the spot," and upon arising after the treatment will declare that he feels much better. Usually he will walk about, stamp the feet, and speak of a burning sensation, as of "prickly heat," in the soles of the feet. This sense of warmth in the soles of the feet is more particularly noticed if the lower portion of the nerve has been given particular attention, as before described, and is doubtless due to the tension upon the distributing branches of the internal and external plantar nerves. Some patients will say, "I feel it clear to the ends of my toes."

As to the degree of force to be used in these manipulations, I will say that must be determined by the existing conditions in each case, and must be regulated by the common sense of the operator. It is said that the hamstrings have been ruptured by forcible extension of the leg, but such brute force as that is entirely uncalled for. Gentle yet firm extension or flexion is all that is required. The frequency of treatments must be determined by the surgeon according to the needs of each individual case.

In severe cases the pain aroused by the manipulations is so severe that general anesthesia must be employed for the first few treatments. The clothing should be loose about the limbs and body, so that all movements may be unimpeded, and the operator may know that all the force of his manipulations are expended upon the limb itself, and not upon binding clothing.

The strength of the great sciatic nerve itself has been variously estimated by reliable experimenters. It has broken under tensions ranging all the way from eighty-two to two hundred and eighty-eight pounds, the experiments being performed upon nerves removed from dead subjects. A nerve in the living body three-quarters of an inch wide has small chance of being broken by manipulations as above described. There is, moreover, no occasion for employment of extreme force.

In mild cases the patient himself can employ this method of nerve-stretching to a certain extent. Let him stand with feet together and legs straight. Then let him bend himself forward at the hips, keeping the legs straight, and touch the toes with the tips of the fingers of both hands simultaneously. Or let him sit upon a firm, flat surface, with legs extended before him. Then, by bending forward, keeping the knees unbent, grasp a foot by each hand and firmly flex it upon the leg. These procedures will be found quite difficult at first, but can be easily performed in a short time by perseverance, and if thus practised by the sciatica victim will ward off many attacks of his enemy.

A CASE OF CONGENITAL TOOTH.*

BY GEO. H. CARVETH, M.D., TORONTO,
Physician Toronto Western Hospital, etc.

Mrs. A., aged 33, the mother of two healthy children, was delivered of a third child in February of this year. On examination of the baby a lower central incisor tooth was discovered, much to the surprise of the mother, as this was the first child known to her to come into the world prepared to eat beefsteak.

At six weeks of age the accompanying photograph was taken, the child being strong and healthy, neither the child nor the mother finding any ill-effect from the presence of the tooth.

Through the kindness of Dr. Harry Oldright, who has seen a few of these cases, I am able to present the conclusions of Dr. J. W. Ballantyne, of Edinburgh, who has made a special study of this unusual condition. He says:

1. "Congenital teeth form a rare anomaly, but one which has long been known both to the profession and to the public.

2. "Their presence has often an ill-effect upon lactation, partly on account of the imperfect closure of the infant's mouth, and partly by the wounding of the mother's nipple; sublingual ulceration may also be a result, and infantile diarrhea and atrophy are more distant consequences. Sometimes, however, symptoms are altogether absent.

3. "Congenital teeth have probably little or no prognostic

*Read at Toronto Medical Society, April, 1902.

significance as regards the bodily or mental vigor of the infant carrying them.

4. "The teeth usually met with are lower incisors, but sometimes upper incisors may be seen, and very rarely molars of either the upper or lower jaw.

5. "They are caused by the premature occurrence of the processes which normally lead to the cutting of the milk teeth; in a few cases it would seem that the anomaly is due to a true ectopia of the dental follicle and its contained tooth.

6. "In a few instances an hereditary history has been established.

7. "As congenital teeth are usually incomplete and ill-developed, and likely to be more an inconvenience than an advantage to the infant, they are best removed soon after birth, an operation which can be easily, and except in very rare instances, safely performed."

In the discussion which followed the reading of the paper it came out that very often these teeth decay and fall out in a few months, and that when they are removed early they may or may not be succeeded by the ordinary temporary teeth.

239 College Street.

PHLEGMON AND FISTULA OF THE LOWER JAW, CONSECUTIVE TO ERUPTION OF THE WISDOM TEETH. FRACTURE OF THE BONE OR FRACTURES OF THE TEETH AND INFECTION AFTER EXTRACTION.

BY THOMAS H. MANLEY, M.D., PH.D., NEW YORK CITY,

Professor of Surgery, New York School of Clinical Medicine; Visiting Surgeon to the Harlem and Metropolitan Hospitals, New York.

Summary.

PERFORATIVE endostitis of the lower jaw is an infective lesion usually consecutive to (*a*) caries of the crown, (*b*) incomplete extraction, or (*c*) the late eruption of the third molar.

Infection first provokes an alveolar abscess, with widespread tumefaction and rigidity of the jaw. This may be followed by dislodgement of the imbedded fang or by alveolar necrosis.

Perforative osteitis from a dead fang occurs through the least vascular surface of the mandible, by way of the dental canal; this is followed by an abscess, ultimately degenerating into a chronic, unsightly fistula.

Surgical aid is resorted to, rather as a means of removing the blemish than because of severe pain.

Operative intervention embraces, (1st) the complete extraction of diseased fangs; (2nd) dissection away of scar tissue; (3rd)

the thorough curettage of the sinus and the closing of the breach in the soft parts in such a manner that little or no deformity will result after healing.

Drainage must be entirely from the base of the alveolus into the mouth, hence the importance of frequent cleansing of the gums with antiseptic lotions until repair is complete.—*American Medicine,* February 8th, 1902.

CASE OF TUMOR OF THE SUPERIOR MAXILLA.

BY CHAS. F. FORSHAW, LL.D., F.R.S.L.,

Doctor of Dental Surgery of the Baltimore College of Dental Surgery, and Honorary Dental Surgeon to the Bradford Orphanage for Boys, the Bradford Women's Home and Shelter and the Bradford Deaf and Dumb Institution ; Member of the Royal Dublin Society.

Miss B. D., aged 27, a lady of healthy appearance, came to me some twelve months ago to ask my advice as to what should be done with respect to a swelling on the left upper jaw, which was about the size of a pigeon's egg, and which had first made its appearance some twelve months prior to her visit to me. The tumor gave to her face an ugly symmetry. Its situation upon the jaw was eight lines from the alveolar margin. It was slightly lobulated, sessile, and caused to the finger a sense of slight pulsation. Its origin could not be directly traced to the periodontal membrane lining the alveolus in connection with any decayed teeth. In general appearance the body suggested gumma, epulis of an unusual form, or epithelioma. She had been treated with potassium iodide without benefit, and there was no history or symptoms pointing to a specific origin. There were no glandular enlargements at the angle of the jaw or about the triangles of the neck. The growth appeared to spring from the labial surface of the alveolar process. Its growth had been very rapid for the last three months, and was quite unaccompanied by any form of ulceration, nor was there any pain.

Miss D. had worn a partial upper vulcanite denture for some years, which was displaced so much as to show some of the natural teeth in both the superior and inferior maxilla, owing to her being unable to quite close the mouth on account of the protuberance of the tumor. In January of last year (1901) the patient having been prepared, chloroform was administered by means of Junkel's inhaler, Mason's gag inserted in the mouth, the cheek retracted, and everything in absolute readiness, Mr. Percy Lodge, F.R.C.S.I., with my assistance, removed the growth with one sweep of the knife. There was much hemorrhage, one or two vessels having to be picked up by catch forceps and tied. The actual cautery (the circular flat button) was now freely applied to the base of the ulcer so produced. This process was pushed so as to destroy the tissues right down to the bone, some of which was gouged away and re-

moved. The wound was plugged with iodoform gauze and the patient allowed to recover from the anesthetic, after having been under its influence less than a quarter of an hour. The total quantity of chloroform used was one drachm. In seven days the lady's face had resumed its normal appearance. She was much brighter, and had even increased in weight. We also, at the same time, excised the edge of the scar where the alveolar process adjoined the buccal mucous membrane, which had a slightly suspicious feel of rigidity, the portion removed being about three quarters of an inch by an eighth of an inch in breadth. I saw her again on the following week, and on this occasion the healed surfaces had quite a healthy appearance. There has been no return of the condition up to the present, March 21st, 1902, when I last saw her. On examination, the tissue removed in the recent state had a fibrous appearance, containing numerous vessels, some of which were of large size. It presented, microscopically, many thin-walled blood channels, lying in a stroma of small spindle-shaped cells, among which could be discerned a few of a myeloid type, certainly suggestive of mild sarcomatous malignancy.

An Electric Ambulance Launch.—The Margaret, the first electric ambulance launch ever built, and the gift of Isaac N. Seligman to St. John's Guild, was launched at Bayonne, N.J., on May 2, and made a successful trial trip. This water ambulance is to be used in transferring sick children from the Guild's floating hospitals to the Seaside Hospital at New Dorp, Staten Island, provision being made for lowering a stretcher directly from the hospital barge through the canopy of the launch.—*Bost. Med. and Surg. Jour.*

Stypticine.—The publications of the past year furnish proof of the value of stypticine as a hemostatic which is available as a means of checking, with certain prospect of success, internal and external hemorrhages. In this respect it may be placed on a level with preparations of hydrastis and secale cornutum as well as iron chloride, and even surpasses these styptics in many respects. In gynecology the efficacy of stypticine is placed beyond doubt by the reports of C. A. Herzfeld, Max Hirsch, Alex. Schlossberger, L. Pineus, H. Langes, and H. J. Boldt, who fully confirm the indications which have been clearly defined in previous Reports. Dietrich Thyen praises the neatness and prompt action of stypticine wadding and gauze as applied to parenchymatous hemorrhage arising from an incision of an abscess in the pit of the arm. In dental surgery stypticine gauze and wadding have likewise met with increasing appreciation as hemostypties after dental extractions, as may be gathered from the praises of Dorge, Deak, and R. Schulz.

Pharmacology and Therapeutics.

IN CHARGE OF
A. J. HARRINGTON, M.D., M.R.C.S.(Eng.)

DIONIN: ETHYL-MORPHINE HYDROCHLORATE "MERCK."

Dionin occurs as a white, bitter powder. It is soluble in about 7 parts of water, 1½ alcohol, or 20 syrup; insoluble in ether or chloroform. It affords neutral solutions which may be advantageously employed subcutaneously. Dionin is supplied also in ¼-grn. tablets.

Dionin in Cough.

Dionin has been employed by J. Korte,[1] of Danzig, in a score or so of phthisical cases, and from the results obtained the author believes that the preparation is of unquestionable value therapeutically. It appeared to be an excellent and reliable means in the treatment of cough in the early stages of pulmonary phthisis; and it is recommended instead of codeine and morphine in all cases of this disease that are not far advanced, as well as in chronic bronchitis, pulmonary emphysema, and bronchial asthma. Not a single failure was observed. The dyspnea and cough were always relieved, the asthmatic attacks cut short, and expectoration favorably influenced. Compared with morphine, dionin is more mildly narcotic in action, has scarcely ever any noticeable effect on the digestive tract, and has no noteworthy by-effects. Compared with codeine, on the other hand, it is found to be more powerful generally, and more persistent in action; it affords better and quieter sleep, and increases expectoration considerably. As a general analgesic, dionin is not as reliable as morphine, but it may, nevertheless, be employed in chronic painful affections, either internally or subcutaneously, and as no tolerance or habit is ever established, may shield many patients from acquiring the morphine habit. Its particular sphere of action will, however, doubtless be in the treatment of coughs due to irritation, those of bronchitis of every origin and phthisical subjects, where it affords general quiet and good sleep, stimulates expectoration, and appears to exert also a beneficial influence on the night-sweats.

Dionin may be given, according to the same author, in doses of from ¼ to ½ grn. several times daily, or in one dose of ½ to 1 grn. in the evening, in solution, syrup or pill.

Dr. G. Schröder,[2] of Hohenhonnef-on-R., confirms Korte's con-

clusions as to dionin's value. He says that "dionin suspended or relieved the cough due to irritation, and induced better, frequently prolonged sleep, the patients feeling brighter and more composed. In many cases the action of dionin was decidedly more satisfactory and pronounced than that afforded by codeine in similar doses. It gave very much the same results as those we are accustomed to get from morphine in corresponding doses, without, however, exhibiting any of the unpleasant by-effects of the latter. Difficult expectoration, nausea, and tendency to constipation were observed in only isolated cases, and but once was increased perspiration observed." From the author's investigations, as well as those of others, it appears that wherever dionin is exhibited, its sedative and irritation-reducing action becomes evident. In its power to check coughing, no matter from what cause, it has shown itself to be very valuable, the reduction in the number of the coughing fits being at once noticeable. Even when large doses are administered the after-effects following morphine are always absent, and it may be given without question in the doses that codeine is ordered, because in therapeutic properties it is in many respects similiar to codeine. At the same time it acts much more sharply and fully than the latter, while its administration is absolutely free from the alarming symptoms caused by the more recently introduced morphine derivatives. The pronounced sedative action of dionin nevertheless is sometimes absent when the remedy is used in insane and other very excited patients. In cough-irritation, Schröder gave the dionin dissolved (2 grains per 1 fl. dr.) in distilled water or bitter-almond water, or in a mixture of equal parts of the two; 15 to 20 drops being given several times a day, or only evenings. The 3-per-cent. solution in distilled water was also used subcutaneously, 15 min. being injected at one time.

Dr. Richard Bloch,[3] of Zbowitz (Moravia), has also investigated the eligibility of dionin as a cough sedative. The results lead him to substantiate the findings of other investigators in this direction. As a cough sedative, in pediatrics particularly, the remedy appeared to be superior to all other morphine preparations.

Dr. Isenberg,[4] of Neckermünde, reports having been induced to employ dionin in four cases of pneumonia following influenza, because of the good results obtained by others with the remedy. Dionin was found to not only lessen the cough-irritation, but also the pains in the side, in consequence of which the inspirations became deeper, and expectoration was found to be unchecked. The action of the dionin became manifest in about half an hour after administration, and continued for several hours, so that three doses of 0.015 to 0.02 gm. kept patients free from pain for almost the entire day.

The author also frequently employed dionin in diseases of the respiratory organs, such as chronic bronchitis, phthisis, etc., and almost without exception secured relief from pain and irritation.

Dionin in Morphinism.

Dionin, according to Dr. J. Heinrich,[5] of Mühlhausen (Alsace), is the most valuable of all the morphine substitutes in the treatment of the morphine habit. In fact, the author believes its power to relieve the morphine desire to be its most valuable property, and to presage a bright future for it. It is particularly useful because of its very ready solubility, and because its solutions are absolutely neutral in reaction, hence insuring painless injections. The solutions, too, are quite permanent, a 10 per cent. solution having been shown to remain clear and undecomposed for weeks, which is not the case with morphine or codeine. So far as the dose is concerned, the author finds that about one-third more is required than when morphine is given, but the exhilaration following the injection is not nearly so great as that following morphine; therefore all danger of a habit is obviated. A slight itching of the skin is usually observed a few minutes after the exhibition of the dionin, just as generally follows injection of morphine or any of its derivatives. The itching, however, disappears in at most ten minutes, even when of the most aggravated form. The good action of the dionin is ascribed to its not causing exhilaration, or conditions resembling it, and to its great solubility, in consequence of which it is rapidly absorbed and as rapidly eliminated. This latter prevents any cumulative action; and it makes little difference by what channel it is eliminated, whether by the gastric mucosa, and from here passed into the intestines and voided with the feces, or whether, as Landsberg assumes with morphine, it passes into the blood circulation gradually from the subcutaneous cellular tissue, and is decomposed by the alkalinity of the blood, or the gases in the latter, or perhaps by some ferment, so that only a part of the dionin is excreted unchanged.

The author also reports a case of morphinism. Ten grains of morphine had been taken per day. This amount was gradually, in eleven days, reduced to nothing, under the influence of dionin injections taking its place more and more, day by day; these latter being of 4 grn. daily. In three weeks more these were likewise reduced to zero, only distilled water being injected at last.

In conclusion, the author states his belief that dionin is also useful in many other cases as a valuable substitute for morphine.

Dionin is recommended by Dr. A. Fromme,[6] of Stellingen (Hamburg), in the treatment of chronic morphinism. He has used it in a great number of cases of morphinism with the most satisfactory results. He states that in this affection it is superior to all the remedies heretofore employed, because besides its great therapeutic value it is readily soluble in water and affords painless injections. The normal dose subcutaneously is from $\frac{1}{4}$ to $\frac{1}{2}$ grn., and per os from $\frac{1}{2}$ to 1 grn. In morphinism, of course, the dose must be much greater. When the amount of morphine taken daily has been reduced to $\frac{2}{3}$ or $\frac{1}{3}$ grn., it is entirely replaced by dionin, and

the amount of this is then also gradually reduced. As soon as the unbearable symptoms, frequent during abstinence from morphine, set in, they are checked at once by a comparatively small dose of dionin; if not controlled in the early stage, a considerable larger dose of dionin will be required, and the results will not be so good. It will soon be found, too, that though at first rather large doses are necessary, yet in three or four days the injections will have to be made only two or three times daily; in most cases a dose is also required at night in order to enable the needful sleep to be obtained. In the author's cases usually a 3 per cent. solution of dionin was injected, the dose of the remedy being from $\frac{3}{4}$ to $1\frac{1}{4}$ grn., the daily amount being up to 15 grn. These relatively high doses were generally well borne; in most cases 6 to 9 grn. a day sufficed. After the complete withdrawal of morphine, care must be taken, the author states, not to make the doses of dionin too small, so as not to shake the confidence of the patient in the remedy. As a rule, the chief symptoms abate in from four to five days, their intensity and duration being reduced. One of the most important effects of a large dose of dionin is the feeling of fatigue it causes; and this is of extreme benefit because of the confidence it inspires that it will afford a good night's sleep—the frequently very obstinate insomnia and the fear of passing sleepless nights are calculated to exert a powerful retarding effect on the cure. The removal of these troubles by dionin hence can but be of material assistance in the treatment. If it is desired, however, to avoid the soporific effect, the doses of the dionin must be reduced to about $\frac{1}{2}$ grn.

As the result of his many observations, the author most warmly recommends dionin in the treatment of morphinism by the withdrawal of the latter.

Dr. Isenberg,[7] of Neckermünde, cites the clinical histories of five cases of morphinism in which cures were effected by means of dionin. Particular stress is laid upon the giving of fairly large doses of dionin at first in order that a strong impression may be exerted upon the patient and give confidence in the effectiveness of the remedy. In practice 5 per cent. solutions were found to be best; with stronger ones some dionin is likely to separate and clog up the hypodermic needle, and absorption is too rapid, which may occasion more or less exhilaration.

In beginning treatment, the morphine dose habitually taken by the patient is gradually daily reduced to, say $\frac{1}{2}$ grn., then dionin given in large doses, say from 5 to 15 grn., according to the case, and these doses are then gradually reduced. In conclusion, the author once more calls attention to the excellent action of dionin on the morphine hunger. A further advantage is that even in comparatively large doses it leaves no feeling of malaise.

Bibliography.—1. *Therap. Monatsh.*, XIII., p. 33. 2. *Therap. d. Gegenw.*, No. 3, 1899. 3. *Therap. Monatsh.*, XIII., p. 418. 4. *Med. Wochenrundsch.*, May 6, 1900. 5. *Wien. med. Blätt.*, No. 11., 1899. 6. *Berl. klin. Woch.*, XXXVI., p. 302. 7. *Allgem. med. Central-Ztg.*, 1900, Nos. 34 and 35.

EUQUININE.

BY DR. M. OVERLACH, GREIZ.

In spite of the considerable number of antipyretics now in existence, none has been found which can be used as a substitute for quinine. The efforts to find such an antipyretic have doubtless resulted in the discovery of many valuable preparations, some of which have certain effects in common with quinine, without even some of its defects; still, the fact remains that none combine the same valuable properties, or are of such universal importance as quinine. To confirm this statement it is only necessary to point out the unique position which quinine holds in the treatment of blood and lymph diseases, whether accompanied by intermittent fever or not. The question of a substitute for quinine of equal value seems, however, to have been solved in another way; a preparation of quinine has recently been manufactured which can be administered in cases where the patient would be unable to retain quinine. This new preparation is ethyl-carbonate of quinine, and has been called euquinine.

C. von Noorden (*Centralblatt fur innere Medizin,* XVII., 1225) publishes his observations on the action of euquinine, which, generally speaking, agree with my own made during a year's investigation. I prescribed euquinine as an antipyretic in pneumonia, pleurisy, phthisis, influenza, typhus, erysipelas. Besides this I used it as an antineuralgic, a tonic, and an antidyscratic.

With regard to euquinine as a febrifuge, I am of opinion that its action is precisely similar to that of quinine, both in intensity and its lasting effect. Von Noorden states that 25-30 grains of euquinine as an antipyretic correspond to 15 grains of quinine, but my experience is that the antipyretic and therapeutic effects of euquinine are equal to those of quinine.

In some exceptional cases I have been obliged to increase the dose to 25 grains in order to lower the temperature about 2 degrees C., but generally 15 grains produced this effect. In a case of phthisis, 15 grains of euquinine sufficed to cause a fall of about 4 degrees C. during the night (from 40.3 to 36.5 degrees C.) without any collapse occurring; the following evening the temperature rose to 38 degrees C., and without the administration of a further dose remained at 37.5 degrees C. After that there was another rise. The dose may, in cases of fever, be increased from 15 grains to 25 or 30, in lieu of 15 grains of quinine, as suggested by von Noorden; the increased dose will render the action of the drug more assured, without producing any injurious effect.

In cases of typhus, it is advisable to use it in combination with baths, and to administer the euquinine shortly before the patient

has his evening bath. The euquinine will then begin to act when the comparatively short effect of the bath begins to subside.

The antifebrile action of euquinine, like that of quinine, only commences several hours (the question of how many I do not consider satisfactorily settled) after its administration.

In a very severe case of erysipelas euquinine failed entirely. The cause of this, I have no doubt, lay in the presence of a huge abscess in the armpit, which was opened and emptied a few days after. This is the only case of infectious fever in which I found euquinine unsuccessful.

One of the great advantages of euquinine over quinine is its almost complete tastelessness, so that there is none of that persistent bitter taste of quinine, which is so distasteful to almost all patients, and often prevents its use, though strongly indicated, specially in the case of children.

Euquinine is so slightly bitter that the patient can take it either with or without water, or also in wafers.

A second no less important advantage of euquinine lies in its leaving the stomach uninjured, whether regularly taken for long periods in small doses, or in occasional large ones. In two cases only, of female patients for whom I had prescribed 3-4 grains of euquinine to be taken twice daily for some time, I was asked to permit a reduction to one dose daily, or the reduction of the doses to one-half, as they felt a slight indisposition which they were unable to clearly define. In both these cases a state of extreme anemia had caused an unusual sensitiveness to any kind of medicine. I complied with my patients' request and reduced the dose to one-half, with the result that they were able to take the drug for many weeks without any unpleasant results, until it had wrought its beneficial effect.

I have observed euquinine also in another way cause a slight indisposition, which disappears, however, after the first few doses, but this I shall refer to again later on. Patients who have been taking quinine for a long time, should, in my opinion, be given double doses of euquinine the first few days, which should afterwards be reduced to single doses, until cure is effected.

With two doses of 1.5-3 grains of euquinine, given daily for several weeks, I had excellent success in cases where small doses of quinine had been given to improve the condition of the blood and to effect a return of the appetite, particularly so with severe neurasthenic and neuralgic complications.

A third important merit of euquinine is, it greatly reduces the cerebral symptoms that cause the so-called "quinine intoxication." The only one of these symptoms, in fact, that it does not do away with is the ringing in the ears. The latter just as often follows either small or large doses of euquinine, but it manifests itself in a very different way. With quinine the ringing in the ears in-

creases with each dose; with euquinine, however, it occurs mostly after the first only, seldom after the second, and never again. This circumstance seems to show that euquinine has no cumulative effect upon the brain, which is of considerable importance, especially in cases where frequent large doses are needed, as in malaria.

Perhaps I may mention here that, on my initiative, trials are now being made in Italy and India in malarial cases; it will, however, be midsummer before any reports can reach us.

What I particularly wish to emphasize is that the merit of these three qualities of euquinine is not confined to their allowing of the administration of larger doses. The absence of bitter taste and injurious after-effects is equally welcome where small doses have to be taken for a long period. In cases of anemia, chlorosis, or both combined, I prescribe daily doses of euquinine of 1.5-4 grains, to be taken for weeks running; also in cases of diseases of the blood, which after repeated and careful blood-tests cannot be classified with any of the recognized disorders of the blood.

I am far from giving a conclusive opinion on the importance of euquinine in cases of blood diseases, my observations having by no means approached their end. What I can say is this: In several cases the use of euquinine in small doses, in the course of a few weeks, resulted in a considerable increase of the hemoglobin as well as the number of microcytes, invariably accompanied by a growing appetite, and a surprising improvement of the general state of the health.

One case I will cite as an instance—that of a stoutly-built girl of sixteen. The diagnosis stated severe anemia, with severe unilateral, cervico-occipital neuralgia. The blood was watery, thin, and of a pale red tint. The amount of hemoglobin was 36 per cent. of the normal. The red blood corpuscles numbered 3,416,000 per cubic millimetre (4,500,000 normal); the white corpuscles, 17,600 (7-10,000 normal). The proportion of white to red corpuscles was 1:194 (1:500 normal). Euquinine was taken, when the neuralgia (usually setting in about noon) became excessively bad, in a dose of 15 grains, followed by another dose of 15 grains a few hours later, and also 1.5 grains regularly twice a day, morning and evening. The 15 grain extra doses were only administered on three different days; the nerves were then sufficiently soothed by the two daily doses of 1.5 grains each, to render further doses unnecessary. After a lapse of three weeks, during which period the patient had gradually and visibly improved, the blood test result was the following: Hemoglobin, 58 per cent. of the normal amount; red corpuscles, 4,383,000 p. cubic millimetre; white corpuscles, 9,840 p. cubic millimetre; proportion of white to red, 1:446.

Considering the severity of the case, and the short space of only three weeks, these results must be termed highly satisfactory.

The general health of the patient corresponded with the improved condition of the blood. While three weeks before the girl had hardly been able to totter from one room to another, and had been a martyr every day to neuralgia, she was now able to walk about fresh and gay, and declared she felt quite well and strong.

Euquinine is by no means intended to replace quinine entirely. It is to assist, or to be substituted for quinine in cases where its bitter taste prevents its being administered, where it cannot be taken on account of gastric sensitiveness, or where it does not agree with the patient. Herein lies the eminent therapeutic value of euquinine.

CLINICAL OBSERVATIONS ON AMYLOFORM.

BY DR. A. HEDDAEUS,
Assistant to the Surgical Clinic of the University of Heidelberg.

Amyloform is spoken of in an article by Bongartz, of Aix, who, after having used it during nine months at the Maria Hospital, refers to it in the highest terms of praise. When comparing it with iodoform, he lays particular stress upon its freedom from irritating qualities, and its entire innocuousness, emphasizing its power as a local disinfectant and its value in diminishing secretion. Our own experience confirms these statements in every particular. During nearly the whole of a year we employed it in cases in which iodoform would formerly have been used, as well as in other diseases, such as phlegmons, in which it had not been our practice heretofore to use such active antiseptics. The manner of application depended upon the chemical and physical properties of the powder, which is insoluble in all solvents, and therefore had to be used as a dusting powder. It could not always be satisfactorily dusted in and fixed in sterilized gauze. In cases of sinuses and wound cavities the amyloform was spread upon the wound and dusted over the gauze with a brush at the time of introduction, or else it was employed with a powder blower. In this way it could be insufflated into deep wounds, forming uniform layers over the wound surfaces, in a more effective way than is possible by any other means. In superficial wounds it was spread over the surfaces with a sterile brush.

I may now be permitted to give a few examples of various surgical diseases, which illustrate the mode of application and the mode of action of amyloform.

Case 1.—A man eighteen years old developed a phlegmon, which rapidly involved the hand after a furuncle, which had begun in the region of the elbow. The incision showed that all of the subcutaneous tissue of the dorsal side of the forearm was in a con-

dition of necrosis and purulent inflammation. Nearly one-half of the circumference of the arm was undermined with pus that had burrowed through the tissues. The entire phlegmonous area was laid open with a long incision and a counter opening was made at one of the margins of the undermined region. The wound was washed out with sublimate and a wet dressing of acetate of alumina was applied. As the wound still looked very pultaceous on the following day, amyloform dusting was tried for the first time, and the entire necrotic surface was thickly powdered. The limb was then placed in a wet dressing. This treatment was renewed daily, the arm being also subjected to prolonged baths. In a few days the wound had become free from all gangrenous tissue, which separated in large superficial sloughs. Vigorous healthy granulations sprang up, which soon needed to be checked.

Case 2.—A man aged twenty-nine, with caries of the elbow joint. In this case, fourteen days after resection of the elbow joint, there occurred a wound diphtheria, with high fever, necessitating a free opening in the region of the elbow. From the very first, amyloform was applied at every dressing, while the treatment with baths and wet dressings was continued. In this case also the wound rapidly became cleaner, and the formation of granulations took place very soon. The secretion of the wound, which at first had been exceedingly profuse, was unquestionably greatly lessened in consequence of the hygroscopic action of amyloform. As in the foregoing case, on removing the dressing we found the wound uniformly covered with a smooth layer of pasty starch, the removal of which revealed fine red granulations.

Case 3.—A man twenty-eight years old, suffering from a carbuncle of the back as large as the palm of the hand. After removal of the necrotic cutaneous area and of the core, amyloform was dusted over the wound and a moist dressing was applied. Although in this case amyloform was unable to prevent the extension of the purulent process toward the periphery and in the deeper muscular layers of the back, it certainly exerted a favorable influence upon the course of the disease by promoting cleanliness and stimulating the formation of granulations.

Case 4.—A man aged seventy, with a large varicose ulcer of the leg. A first attempt was made to transplant upon it a large flap of mucous membrane taken from the vagina of a woman who had been operated upon by colporrhaphy. This proved unsuccessful, as the flap became gangrenous. An amyloform dressing was then used, under which the ulcer rapidly became clean, after which a Thiersch's graft was done. During the subsequent treatment iodoform vaseline was used on one occasion, but gave rise to an extensive eczema. Dermatol proved inefficient, but the eczema rapidly disappeared after the application of amyloform.

Case 5.—In this instance amyloform was employed for a long time to fill a bone cavity during open treatment of the lesion. The patient was a lad aged eighteen, suffering from chronic osteomyelitis of the tibia, in whom a large fragment of the tibial head was removed by sequestrotomy. A plastic closure was technically impossible. The purulent secretion rapidly diminished under daily dustings of amyloform; vigorous granulations sprang up in the cavity of the bone, so that filling in with iodoform starch according to Bier's method, which had at first been contemplated, and from which we had obtained good results in a case of osteomyelitis, appeared superfluous. The effect of amyloform in stimulating granulations and arresting secretions must in this case have contributed to no little extent toward the rapid filling in of the cavity. In this case we also had an opportunity of observing that amyloform is ineffective against the pyocyaneus bacillus. In the course of healing a strong development of pyocyaneus took place, which only could be controlled by sublimate, which acts as a specific against this bacillus.

I will briefly refer to another case which shows the importance of amyloform as an agent to promote the filling in of bones in order to obtain the closure of external wounds. The patient was a young man who, owing to a caries of the cuboid of the left foot, had been treated several times by curettage, after which an obstinate secreting fistula always remained behind. On the present occasion curettage was again performed, after which, as the small cavity in the bone, about as large as a hazel nut, appeared to be clean, and there were no foci of softening, the cavity was filled up to the margin with amyloform and the skin was closed with a few silkworm sutures. During the first few days there was a slightly turbid secretion coming from one of the stitch-holes, after which the wound healed smoothly. It has now remained closed for about two years, and there is no evidence that any recurrence is likely to take place. We are far from attributing the result in this case to a specific influence of amyloform upon a tubercular process, but ascribe the healing to the cleansing of the bone cavity. Nevertheless, it is quite noteworthy that the powder could be used in such a manner.

In a further extensive employment of this remedy in many cases of tuberculous disease, the rapid cleansing effect of amyloform was always marked. We saw no reason to believe that it had any effect upon the tuberculous virus, and attributed this cleansing action of the remedy, which undoubtedly constitutes its chief merit, to its disinfecting power, without claiming for it any specific influence. This disinfectant power appears to be more persistent than that possessed by any of the other antiseptics. This may depend upon the fact that the formaldehyde adheres longer to the starch paste, and that the greater affinity which this starch layer manifests for the loose tissues deprived of their epidermal

coverings renders the action of the remedy more permanent upon those layers that are penetrated by pus-forming organisms.

In all cases in which amyloform was used it never produced any bad effects, such as eczema. When applied to large wound surfaces, especially when they are already somewhat cleansed, the patients at first experience a slight burning, which, however, was always so moderate that they never complained of it, but only mentioned the fact when asked. Like Bongartz, we failed ever to observe any toxic effects, although the remedy was sometimes used in very large amounts.

On the ground of our experience with it, we may highly recommend amyloform as an antiseptic which is capable of taking the place of iodoform in many cases, and, owing to its complete freedom from irritating effects, should be preferred to many of the newer antiseptics. Its chief effect is to promote the cleansing of suppurating wounds, and hence its chief field of usefulness will lie in the treatment of superficial suppurative processes.

Levulose in Tuberculosis.—Dr. Hugo Weber, of St. Johann-Saarbrücken, writes in *Medico*, Berlin, September 4th, 1901, on the "Treatment of Tuberculosis of the Lungs by Means of Carbonic Acid," and shows that all the recognized methods of handling the disease are finally dependent upon it. Besides the various nutrient and therapeutic measures which he recommends, he lays special stress upon increasing carbonic acid production by the administration of levulose, which is oxidized in the body much more completely than any sugar, and hence is well borne by diabetic patients also. He administers a heaping teaspoonful of Schering's preparation four times daily. And since levulose is a nutriment rather than a medicine, it does not matter whether it is taken before or after eating, or with the food and drink. The classical investigations of L. von Alder and Clemm (*Therapeutische Monatshefte*, August, 1901), have shown that fruit sugar, or levulose, increases the amount of gastric juice whilst diminishing its acidity; hence it is not only a most excellent nutriment, but actually aids and stimulates digestion. No wonder, he says, that he has been able to cure a whole series of cases in the initial stage of phthisis pulmonum with this medication alone. In advanced cases of tuberculosis, where cavitation had occurred, levulose or the production of carbonic acid by any ordinary means alone was not sufficient, and Weber employed hypodermic injections of chemically pure liquid paraffine, with the idea that the hydrocarbon, when absorbed by the body, would be converted into carbonic acid and water. By this combined process, levulose internally and paraffine injections, he has been enabled to cure patients in advanced stages of tuberculosis, such as are often met with in ordinary practice. Out of the fifty-two cases which were reported in the March number of the *Therapeutische Monatshefte* of this year, he has cured thirty-two; fourteen are considerably improved, and only six have died.

Selected Articles.

GASTRO-ENTERITIS IN INFANTS.

BY R. D. MOORE, M.D., CENTRAL MISSOURI.

Three melons went sailing out in the West,
  Nutmeg, water and musk,—
Three little boys at evening dusk,
  While nature brooded in damp suspense,
Climbed over a ten-rail, eight-foot fence,
  And stowed a melon beneath each vest.

Three little colics appeared that night
  And tackled the cherubs three.
Oh, the groan, the pain, the misery,
  The cramp, the gripe, and the inward hurt,
The fate the doctors couldn't avert—
  Three undertakers at morning's light.

Yet melons go sailing everywhere;
  And women are born to weep;
And boys will forage while farmers sleep;
  And colics come where melons go.
And so will doctors and every woe
  That points the way to the golden stair.

These serio-comic lines, attributed to Eugene Field, contain a pathetic truth applicable to the season of discontent, hot weather, teething babes, and diarrheas.

The vast hot wave and drought of last summer, extending universally for nearly two months, carrying with it an unusual epidemic of bowel diseases, took its toll and taxed physicians generally in their endeavors to combat the disease.

It is difficult to present any new lines of thought in this direction, but even repetition has its virtues. Keeping everlastingly at it finally brings its reward.

Considering diarrhea etiologically, the first step is catarrhal inflammation, prolonged by rapid development of micro-organisms. To my mind, the various forms of diarrhea, considered separate diseases by a good many writers, are the same disease, the one being practically the continuation of the other. Thus we have the mechanical or irritative form produced by masses of food, unripe fruits, etc., in which the increased peristaltic action and secretion represent Nature's efforts to remove offending material. Secondly, this interferes with the digestive apparatus, and the dyspeptic form

follows. Thirdly, this form, associated with a low grade of catarrhal inflammation, affords an excellent field for fermentation and bacterial development. Lastly, after continued bacterial development, the formation of inflammatory lesions produces the most dangerous form of all, the dysenteric. However, it is needless to state that any variety may be acute.

In my work this summer the third form above mentioned, the bacterial diarrhea, or true gastro-enteritis, has been by far the most prevalent, and it is this disease I beg to present for your perusal.

The potent factor in the prolongation of gastro-enteric infection is the constant development and multiplication of micro-organisms. The inflammatory lesions are probably slight or superficial, the severity of the disease and the prognosis depending upon the absorption of toxines. Cholera infantum, the genuine choleriform diarrhea, is but an exaggerated type of this disease, being practically ptomaine poisoning. Thus, in treating these cases it must be remembered that they are a toxemia, producing, if not checked or modified, changes in the glandular structure of the mucosa, the disease passing into a colitis of dysentery.

From observations in my practice, mistakes in feeding during the heated term appear to be the chief cause of this condition. Between six months and one year, if the babe has not been weaned, it is permitted and encouraged to partake, in addition to the mother's milk, of the regular family diet, generally a promiscuous one, totally unfit for the weak digestive apparatus of young children. If a milk diet is exclusive, as a general rule cow's milk unmodified constitutes the chief support. The difference in chemical composition between cow's milk and breast milk not being appreciated by parents, many infants suffer from indigestion and malnutrition, thus rendering them an easy prey to an infective process. I find quite a number of parents who have some idea about the necessity of sterilization, and boil the milk. This may produce such a result, but it is open to objections. The casein is rendered coagulable by rennet, and is acted upon slowly and imperfectly by the digestive ferments, delaying digestion considerably. Certain changes take place in the sugar and fat, the former being partially converted into caramel. Contaminated milk is a potent factor in the production of infective diarrhea, for with the best care milk, a few hours after being drawn, will contain thousands of saprophytic bacteria. These probably contaminate milk during the process of milking and handling, for on a gelatin plate that had been placed under a cow for two minutes nearly two thousand colonies developed. While all of this germ life may not be pathogenic, yet it is certain that many of these micro-organisms may cause bacterial enteritis. Bacteriological research has not isolated any single form of bacteria as the specific cause of diarrhea. During the nursing period the bacteria lactis aerogenes and coli com-

munis are constantly present in the intestines of infants in great numbers, occupying the upper and lower tracts respectively. These are found in a healthy state, and are supposed to become pathogenic only under certain conditions, particularly the coli communis. In an ordinary attack of indigestion the residue in the bowels undergoes fermentation and putrefactive changes, forming splendid culture media for the propagation of bacteria, whether these are ingested with food or develop from those remaining latent in the healthy state.

The symptoms vary in intensity, according to the degree of infection, simple cases presenting about the same symptoms as an attack of intestinal indigestion. In mild cases fever is slight; there is occasional vomiting; the child becomes cross and restless, and has five to ten stools daily. As digestion is greatly interfered with the stools may contain curds of casein. It is seldom that the physician is called to attend cases at this time, parents not appreciating the danger of delay and allowing more time for the multiplication of bacteria and absorption of toxins. Usually we see the case when the stools have increased in number, are very thin, of a greenish-yellow color. There is fever, the temperature ranging from 100 to 102 degrees F. The pulse is rapid; the tongue coated, and the appetite very poor.

With strict regulation of diet and proper medicinal treatment, these cases usually subside without much apprehension, but dangers of relapse and continuation of diarrhea must be fully impressed upon parents. Many have come to my office for a prescription or medicine, stating that the baby has diarrhea, and after prescribing for what appears to be a simple trouble, I have been called a day or two later, to find the "simple case" in collapse from a true cholera infantum, with grave prognosis. The moral is to keep a string to your cases. You get discredit for the loss of the case no matter whether the child has been sick ten days or more prior to the initiation of your treatment.

Occasionally cases with mild initial symptoms do not improve under constant attention, but run the gamut from indigestion through infective catarrh to a dysentery, and finally terminate in death. Again, we are not always fortunate in encountering cases with mild symptoms. The affection may start with high temperature, 104 deg. F., a weak rapid pulse, vomiting, and general prostration, indicative of systemic infection from absorption of poisonous matters in the intestinal canal. Thirst is excessive, and vomiting easily excited. Diarrhea comes on rapidly, with pain prior to each movement. The stools may be offensive, or have a musty odor, and become very thin as the disease advances. Under appropriate dietetic and medicinal treatment instituted early, there usually appears after a day or two a reactionary period, the temperature falls, and the general symptoms denote improvement.

However, the prognosis in all infective cases must be guarded. Especially in weak, ill-nourished children or those of the so-called scrofulous diathesis, there is a great tendency to formation of inflammatory lesions in the intestinal mucosa.

In the case of infants and young children who have had slight diarrhea early in the season, prophylactic measures rigidly enforced will often prevent future attacks later in the summer. Where maternal nursing is impossible, impress upon parents the necessity of absolute cleanliness of all bottles, nipples, and utensils which come in contact with milk. Be explicit in your directions. General instructions allow too much latitude, and if rules are not obeyed with utmost care nothing is gained, and all labor put to a poor use.

Cow's milk, being most convenient and inexpensive, is the universal artificial diet, but in order to prevent malnutrition and diarrhea it must be modified and sterilized, if possible. The proteids in cow's milk in the presence of gastric ferments coagulate into firm curds, while those of woman's milk form loose flocculi. This is the reason why cow's milk, even diluted, is difficult to digest, the tendency to form curds in the stomach rendering digestion slow and imperfect. The bugbear of modification is easily overcome if the few simple rules of dilution, the addition of milk sugar, and an alkali, are followed out. I find Holt's tables very convenient and practical. In regard to sterilization, boiling being objectionable, I have had several cylindrical tin tubes, with one end closed, made by a neighboring tinsmith. These are ten inches long, and large enough to hold a milk-bottle and allow a small surrounding space. Place the bottles of modified milk in the tubes which are filled with warm water. Partially fill an ordinary tin bucket with water and boil it, remove the vessel from the fire, and place the tubes in the boiling water, covering the bucket with a lid having one or two perforations to allow the escape of steam. Let the tubes remain twenty or twenty-five minutes, depending upon the apparatus. Drain off the water and rapidly cool with cold water. This is an inexpensive model of Freeman's apparatus for sterilizing at a low temperature, 170 degrees. In milk thus treated the ordinary pathogenic bacteria are rendered inert, but the spores are not destroyed; hence milk should be prepared once daily, and in very hot weather twice a day.

I would simply mention the dangers of overfeeding and the benefits derived from proper hygienic measures relative to bathing, fresh air, care of the child's mouth, etc.

Some of my worst cases occurred not in bottle-fed babies, but in older children, the initial attack being cholera morbus from eating half-ripe fruit. After the acute symptoms subsided, the hot weather continuing, secondary attacks ensued which left the bowels

disordered, and afforded a proper medium for an infective process. Therefore I instruct the parents to seek medical advice the moment there is any indication of diarrheal disease. "A stitch in time saves nine" is appreciable here with full force.

To prevent further absorption of toxines, the bowels must be thoroughly evacuated at once. Calomel is the sheet anchor here. In mild cases one-quarter grain is administered every hour, repeated four times, and in severe cases one grain every hour for three doses, followed always by a generous dose of oleum ricini. This usually brings about rapid evacuation, after which there is generally a reactionary period, and conditions show some improvement. If it were possible to sweep out all pathogenic bacteria and render the bowel sterile with the cathartic, no further treatment would be required; but this is not the case, as the diarrhea and nervous symptoms continue with more or less severity. Hence it is necessary to select a diet which will check as far as possible further fermentation, and also to administer medicines to arrest the catarrhal discharges by their astringent action upon the intestinal mucosa, and to prevent putrefaction by their antiseptic effect upon the bacteria and spores.

In many cases food should be withheld for ten to twelve hours, or even longer in older children, with proper regard to the child's strength and general condition. Small quantities of cold sterile water or barley and albumen water, given frequently, allay the thirst. If the pulse is weak and thready, stimulants should be added. Good brandy or whisky answers nicely, but in some cases where it is rejected by the stomach strychnine is usually retained. The nitrate is more soluble than the sulphate, and is therefore preferable. After reaction a gradual return to foods containing more proteid matter may be practised, commencing with animal broths, beef juice, reliable beef preparations, somatose, etc. It is to be remembered that one child starves upon what another thrives, and it is only by careful trial of different articles of diet one can arrive at proper food.

Since the putrefactive process is the objective point we naturally turn to those drugs that act as interstitial antiseptics. Digestion in the stomach and upper intestinal tract has practically ceased while the contents of the lower tract, ileum and colon, are in a state of active decomposition. Consequently it is necessary to administer an antiseptic which will pass through the stomach and duodenum unchanged, and exert its full strength on the multiplying bacteria of the lower tracts. During the summer of 1900 I had considerable success along these lines with tannopine, treating twenty or more cases, and equally satisfactory results were observed under its use during last summer. For the information of those practitioners who are unfamiliar with this drug, I would state that

it is a chemical combination of tannic acid (87 per cent.) and hexamethylen tetramine. It is a tasteless, brownish powder insoluble in water. It passes unchanged through the stomach owing to its insolubility in acid fluids, but is split up into its components after reaching the alkaline intestinal contents. The tannin liberated exerts an astringent effect upon the congested mucous lining, decreasing the discharge and peristaltic action, while the formaldehyde acts upon the putrefactive process, thus removing the principal danger, the absorption of toxines.

In those cases where there are present considerable prostration, high fever, and thirst, I usually irrigate the colon, first with a normal saline solution (one drachm of sodium chloride to the pint) until the water is returned clear. After thorough washing I inject a pint of tannopine mixture, one drachm to one pint of water, adding enough bicarbonate of soda or limewater to make a good solution. This is injected above the sigmoid with a long rectal tube, or soft rubber catheter, and by firmly pressing the ball of the thumb against the anal opening the solution may be retained quite a while, allowing a longer time for the drug to exert its full local effect. This is especially recommended in the dysenteric form, the tannopine being actually applied to the ulcerated lining of the gut and promoting rapid healing.

The following report will outline successful treatment of cases treated last summer:

Case 1.—A three months old girl baby, weak, puny-looking from birth. The mother, who suffered from a prolapsed uterus due to an old perineal tear, had a scanty milk supply from the birth of the child, and it soon gave out. The child was put on the barley water mixture and did well for a short time, gradually gaining in weight. This temporary growth soon ceased, and modified cow's milk, sterilized or heated to 170 degrees F., condensed milk, etc., were tried, but the child suffered with more or less diarrhea. As this became much worse I was called, and found the baby in a condition of stupor; temperature 102 degrees, poor circulation, with cool extremities. There had been ten or twelve foul-smelling stools daily, some mucus, but no blood. Considerable pain was present prior to each motion, and the buttocks were slightly excoriated.

Treatment.—All milk was discontinued, and nothing given but cold sterile water with a light egg albumen for eight or ten hours. Twenty-five drops of brandy diluted in a half-ounce of water were administered every three or four hours. Cold sponging was employed to reduce the temperature. Calomel, one-quarter grain, was given every hour, repeated four times, followed by a dose of castor oil. On the next day I found that the calomel and oil had acted thoroughly. The temperature was 100 degrees and the child appeared somewhat brighter. I irrigated the lower bowel

with normal saline solution, washing out considerable slimy debris of less offensive odor. I next injected a pint of tannopine solution, 60 grains in limewater. About one-half of this was retained for ten minutes. The following was prescribed:

Tannopine	1 drachm.
Beta-naph. bismuth	6 grains.
Paregoric	48 drops.
Syrup simple	3 ounces.

M. Sig. Teaspoonful every three hours. Shake bottle.

The diet consisted of barley water with white of egg, whisky as a stimulant being continued every fourth hour. On the third day, temperature 99 degrees. The child was sleeping well, and appeared decidedly better. The stools were reduced to four per diem, and were of much better consistency. The medicine was continued, with liquid beef peptonoids added to the diet. Irrigation of the bowel was practised as before. On the fourth day the case was doing nicely. The stimulants were gradually discontinued. The original prescription was continued two days more, and then replaced by tannopine powders, five grains every four or five hours, with an occasional dose of calomel to keep the bowels cleaned out.

It is a hard problem to feed this child, and I have treated it for several attacks similar to the above with practically the same treatment, relying upon tannopine to disinfect and control the bowels.

Case 2.—I was called in the night to see a boy nearly four years old with a typical cholera morbus. He was vomiting, and had had diarrhea for several hours. Small doses of calomel, and the old-time remedy, spirits of camphor, checked his vomiting, or it ceased from the stomach being finally emptied. The bowels were cleaned out with grain doses of calomel, followed by a dose of effervescent magnesium sulphate. Tannopine in 6-grain doses was then given every two or three hours, simply to control the motions and tone up the bowels. There was no infection at this time. Four days later I was called to see him again for another attack due to his eating unripe fruit, and this time the case was more difficult to control. After vomiting had ceased, and I thought the bowels were thoroughly evacuated, the diarrhea continued, five or ten stools daily, thin, watery, and acrid, and of a yellowish green in color. Evidently the acute attack had passed into an infective catarrh. The temperature rose rapidly, with a weak pulse. Vomiting easily excited; excessive thirst was present, but water was ejected by the stomach at once. Crushed ice was given to relieve the thirst, cool sponging for the fever, and a teaspoonful of brandy every fourth hour, which was tolerated fairly, being vomited but once or twice. To check vomiting the following tablet, crushed, was given every fifteen minutes for two hours:

Zinc sulpho-carb	1-20 grain.
Salol	1-10 grain.
Bismuth subnitr	½ grain.
Calomel	1-60 grain.
Pepsin pure	¼ grain.

This acted nicely, and in two or three hours the child was able to take albumen water without vomiting. The stools continuing frequent, tannopine in 8-grain doses was administered every two hours. Liquid beef preparations and animal broths comprised the nourishment. The treatment was continued for several days, gradually reducing the drugs and increasing the dietary. The case made a slow recovery. The bowels were in a weakened state from the primary attack, thus rendering them an easy prey for an infective process.

Case 3.—Girl baby, eleven months old. The mother, believing herself to be pregnant, weaned the child in June, using diluted cow's milk as the chief diet. Early in July the child was attacked with diarrhea, the stools being offensive and of the usual greenish yellow cast, averaging ten a day. The child had lost weight, was fretful and had considerable colicky pain prior to each movement. Temperature 100; no vomiting.

Treatment.—All food withheld for ten hours, except the customary albumen water to allay thirst. Calomel was administered followed by castor oil. After an evacuation, this preparation was ordered to be given, one teaspoonful every three or four hours:

Tannopine	2 drachms.
Bismuth beta-naph	15 grains.
Paregoric	2 drachms.
Simple syrup	1 oz.
Essence of pepsin	q.s. 3 ounces.

Ft. Mist.

A barley-water diet was adopted until the end of the second day, when proteids were carefully resumed, commencing with a small amount of beef bouillon and then cold-pressed beef juice. The latter contains nearly three per cent. proteids, taking a pound of beef to half a pint of water. The stools gradually decreased, and became almost odorless.

Case 4.—The patient was a baby girl, nine months old, who had been fed since birth on condensed milk. The child did nicely, gaining steadily in weight until hot weather, when a little carelessness with nipples and nursing-bottles brought on an infective diarrhea. The stools became green and frequent, the buttocks being red and sore. Temperature 104 degrees; circulation poor, with great prostration; stupor, indicating considerable toxic absorption. Wishing to remove the putrefactive material from the bowel as rapidly as possible, the colon was at once irrigated with cold water.

This had the two-fold effect of removing effete material, and reducing the temperature. A large dose of castor oil was given at the same time and happily retained. After the oil had produced the effect desired, the tannopine-bismuth mixture was given every third hour, with barley water and brandy as a stimulant. There was such evidence of toxic absorption that I was afraid of inflammatory lesions forming in the mucosa of the large bowels, and so irrigated twice daily with tannopine, 60 grains, in a pint of water with enough soda bicarbonate added to make a good solution. Beef broths and liquid peptonoids constituted the diet for several days. The treatment was continued for four days before any great improvement could be noticed. The fever was always controlled with cool sponging. About the fifth day the stools decreased to three per day, and the child improved steadily from now on. It is doing well upon modified cow's milk sterilized after the manner described in the first part of this report. An occasional dose of calomel is given, and if the bowels are too loose frequent small doses of tannopine control them.

Case 5.—This was one of the most difficult cases I ever encountered, taxing my efforts to the utmost. The child, nearly one and one-half years old, was weak and delicate, an inheritance from consumptive progenitors. It was teething, canines and anterior molars making their appearance. The gums were congested and very sore. This baby had been weaned when six months old, though previously there had been mixed feeding, as the mother's milk supply was very scanty at times. It is a mystery to me how the child passed through the first summer, its resisting powers being very feeble. The limbs were small and puny, the head rachitic, flat and large above, rapidly narrowing to small chin. When called to attend the child she was very restless, crying spasmodically and flexing the legs upon the abdomen as if in considerable pain. Temperature 103 degrees; pulse correspondingly rapid. Tongue furred to the edges; belly puffed up under the diaphragm, and somewhat tympanitic. No movement of the bowels since twenty-four hours, when she had three stools of fair consistency, but green in color. She had vomited once or twice. The diet had been promiscuous, chiefly milk. I made no attempt to diagnose the case then, but treated it symptomatically, ordering one grain each of calomel and bicarbonate of soda for three doses, followed by a large dose of oil. A rectal injection was given, and with negative results, washing out a few particles of a pasty, gray substance. Sponging with cool water was employed every half hour until the temperature declined. Plenty of cold sterile water was given, but all food withheld until the next day. Small doses of camphorated tincture of opium were administered to relieve the pain. The next morning I found the abdomen considerably re-

laxed. The patient had several stools, and appeared easier. Small particles of a substance which, after close examination, proved to be part of a half-ripe peach which she had consumed unknown to the mother, were found in the stool. The temperature had fallen after the first two motions, but this was only temporarily, the fever again reaching 102 degrees in a few hours. My first impression was that the case was an ordinary diarrhœa from ingestion and irritation, but the continued high temperature warned me that an infective process was taking place in the gut. The calomel and soda tablets were continued and irrigation of the lower bowel washed out considerable mucus and debris of bad odor. Barley water, egg albumen, and animal broths were given. Many writers speak of the ease of colonic irrigation, and the necessity of pushing the rectal tube high up to obtain results. In this case at no time was I able to introduce the tube more than five inches, being careful to follow the rules and let the water flow before introduction. However, I was able to inject a quart before the water was expelled, and so I am confident it passed the sigmoid. On the third day the diagnosis of infective enteritis was confirmed. The child had passed ten stools, loose and watery and green from the calomel. The temperature, fluctuating between 99 and 102 degrees, was controlled by cold sponging. The dietary remained the same, except that thin rice gruel was added. The following was prescribed :

Tannopine	2	drachms.
Beta-naph. bismuth	40	grains.
Syrup simple	2	ounces.
Liq. peptenzyme q.s.	6	"

Ft. Mist.

Sig. Two teaspoonfuls every fourth hour.

Also ten drops of paregoric and four of spirits of camphor were administered three or four times per diem, and strychnine nitrate, 1-150 grain, three times a day, as brandy was not tolerated by the stomach. This treatment was continued three days more, but with little perceptible improvement. The stools lessened in number, but were small in amount and thin. The temperature continued high and, with the appearance of blood and mucus in the stools, indicated a very grave prognosis. This condition had gone on to the formation of inflammatory lesions in the gut wall, and was now a dysentery. Much discouraged, I irrigated the lower bowel twice daily with tannopine solution, removing small quantities of slimy mucus. The mixture first prescribed seemed to nauseate and was vomited twice, but tannopine powders, five grains every third hour, sifted on a teaspoonful of water, were tolerated nicely. Stimulants continued. This treatment, with liquid beef peptonoids, managed to keep the child alive, the general condition slowly im-

proving. Blood disappeared early after the third irrigation. The temperature gradually fell and the stools, while frequent, became better in consistency. Rice and barley gruels were now well tolerated, and the tannopine powders were continued every fourth hour. The bowels were cleaned out with calomel and oil about every fifth day. At the end of the second week she was having two and occasionally three stools a day, and was slowly regaining strength and weight. Fearful of another attack during the hot season, I administered as a prophylactic, two-grain doses of tannopine three times a day, with cod-liver oil, tonics, etc. This small amount of tannopine acts favorably as an intestinal antiseptic, preventing fermentation and putrefaction. The tubular diathesis was instrumental in prolonging this case. The original treatment was practically unchanged, and finally conquered the disease in the face of most difficult conditions.

Bacterial enteritis always has a tendency to run a chronic course. Some cases continue from day to day with little or no improvement, and are exasperating enough to provoke a saint. Here is the time the practitioner makes a mistake by jumping from one drug to another, hoping to get better results. Seldom is improvement attained by such procedure. Thus, in Case 5, persistence in treatment in the face of most discouraging symptoms, finally brought about a cure. Sometimes when cases are more or less chronic, and the parents seem dissatisfied with the prospects of recovery, the same medicine administered in a different form will often restore their confidence.

Tannopine can be given in several different ways. The shake mixture combination with bismuth is my favorite method. The beta-naphthol bismuth is preferable, as it can be given in smaller doses, and has a more powerful antiseptic action than the subnitrate. Combining it with tannopine the mixture is palatable, odorless, and not only tolerated by a weak stomach, but allays nausea. However, tannopine does not cure diarrheal affections in a specific way, but acts as an astringent and antiseptic on the mucous membrane. The patulous orifices of the ducts are closed, capillary congestion reduced, and fermentation is arrested. The reduction of the congestion relieves pain to quite an extent, but in severe cases small repeated doses of paregoric will be of service, quieting a restless, fretful child, and securing the much-needed rest. The value of antiseptic agents in colonic irrigation is regarded as doubtful by some authorities, but I must emphatically assert that the good results derived from the use of tannopine in this manner are not to be questioned. Used correctly, it cleanses and disinfects the large gut. In colitis the first application of the astringent to the ulcerated mucous membrane produces good results, manifested by an early disappearance of blood and mucus from the passages.

Long to Reign Over Us

God Save the King

That brilliant spectacle, the crowning of a king—the first in many, many long years in old England—will soon be a tale that is told. The pomp and grandeur of the ages past, the splendor of to-day and the peace of a long to-morrow attend Him who brings to England's Throne the personal majesty and strong characteristics we bluntly term valor, decision, fortitude and tact. From every Colony a large and representative number of loyal subjects have gone aboard the great ships, their common destination Merrie England, their dearest hope a foot-hold in a London street, vantage ground enough to view the two great processions. Talk of "Imperialism"! The Coronation time in London will speak louder than written volumes on the subject of unity with the beloved Motherland. The kingly Edward VII., the beautiful and gracious Queen Alexandra, the dawning twentieth century of invention, affluence, educational advantages, religious and social betterment—what a prospect for all Christendom to gaze upon!

Only one shadow—the shadow of death out in South Africa; but while we write, perchance the white dove of peace is on the wing, freighted with its blessed message. May it fly in at the great ceremonial, and find a fitting nook in which to build its cot forever in the golden crown of Greater Britain's Monarch upon whose possessions the sun shall never set.

May Twentieth. W. A. Y.

The Canadian Journal of Medicine and Surgery

J. J. CASSIDY, M.D.,
EDITOR,
69 BLOOR STREET EAST, TORONTO.

W. A. YOUNG, M.D., L.R.C.P. Lond.,
GENERAL MANAGER,
145 COLLEGE STREET, TORONTO.

Surgery—BRUCE L. RIORDAN, M.D., C.M., McGill University; M.D. University of Toronto; Surgeon Toronto General Hospital; Surgeon Grand Trunk R.R.; Consulting Surgeon Toronto Home for Incurables; Pension Examiner United States Government; and F. N. G. STARR, M.B., Toronto, Associate Professor of Clinical Surgery, Lecturer and Demonstrator in Anatomy, Toronto University; Surgeon to the Out-Door Department Toronto General Hospital and Hospital for Sick Children.

Clinical Surgery—ALEX. PRIMROSE, M.B., C.M. Edinburgh University; Professor of Anatomy and Director of the Anatomical Department, Toronto University; Associate Professor of Clinical Surgery, Toronto University; Secretary Medical Faculty, Toronto University.

Orthopedic Surgery—B. E. MCKENZIE, B.A., M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Surgeon to the Out-Patient Department, Toronto General Hospital; Assistant Professor of Clinical Surgery, Ontario Medical College for Women; Member of the American Orthopedic Association; and H. P. H. GALLOWAY, M.D., Toronto, Surgeon to the Toronto Orthopedic Hospital; Orthopedic Surgeon, Toronto Western Hospital; Member of the American Orthopedic Association.

Oral Surgery—E. H. ADAMS, M.D., D.D.S., Toronto.

Surgical Pathology—T. H. MANLEY, M.D., New York, Visiting Surgeon to Harlem Hospital, Professor of Surgery, New York School of Clinical Medicine, New York, etc., etc.

Gynecology and Obstetrics—GEO. T. MCKEOUGH, M.D., M.R.C.S. Eng., Chatham, Ont.; and J. H. LOWE, M.D., Newmarket, Ont.

Medical Jurisprudence and Toxicology—ARTHUR JUKES JOHNSON, M.B., M.R.C.S. Eng.; Coroner County of York; Surgeon Toronto Railway Co., Toronto; W. A. YOUNG, M.D., L.R.C.P. Lond.; Coroner County of York, Toronto.

Pharmacology and Therapeutics—A. J. HARRINGTON M.D., M.R.C.S. Eng., Toronto.

Medicine—J. J. CASSIDY, M.D., Toronto, Member Ontario Provincial Board of Health; Consulting Surgeon, Toronto General Hospital; and W. J. WILSON, M.D., Toronto, Physician Toronto Western Hospital.

Clinical Medicine—ALEXANDER MCPHEDRAN, M.D., Professor of Medicine and Clinical Medicine Toronto University; Physician Toronto General Hospital, St. Michael's Hospital, and Victoria Hospital for Sick Children.

Mental Diseases—EZRA H. STAFFORD, M.D., Toronto, and N. H. BEEMER, M.D., Mimico Insane Asylum.

Public Health and Hygiene—J. J. CASSIDY, M.D., Toronto Member Ontario Provincial Board of Health; Consulting Surgeon Toronto General Hospital; and E. H. ADAMS, M.D., Toronto.

Physiology—A. B. EADIE, M.D., Toronto, Professor of Physiology Woman's Medical College, Toronto.

Pediatrics—AUGUSTA STOWE GULLEN, M.D., Toronto, Professor of Diseases of Children Woman's Medical College, Toronto.

Pathology—W. H. PEPLER, M.D., C.M., Trinity University; Pathologist Hospital for Sick Children, Toronto; Demonstrator of Pathology Trinity Medical College; Physician to Outdoor Department Toronto General Hospital; Surgeon Canadian Pacific R.R., Toronto; and J. J. MACKENZIE, B.A., M.B., Professor of Pathology and Bacteriology, Toronto University Medical Faculty.

Ophthalmology and Otology—J. M. MACCALLUM, M.D., Toronto, Assistant Physician Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

Laryngology and Rhinology—J. D. THORBURN, M.D., Toronto, Laryngologist and Rhinologist, Toronto General Hospital.

Address all Communications, Correspondence, Books, Matter Regarding Advertising, and make all Cheques, Drafts and Post-office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College St., Toronto, Canada.

Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the fifteenth of the month previous to publication.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the tenth of the preceding month.

VOL. XI. TORONTO, JUNE, 1902. NO. 6.

Editorials.

UTILITY OF ALCOHOL AND OATMEAL IN TUBERCULOSIS.

IN an article published in our January number, 1902, we quoted statistics showing that Americans and Canadians do not consume as much alcohol as peoples of the same races in Europe. We also alluded to the fact demonstrated by the latest French authorities, that less alcohol is consumed per capita in Canada than in any other civilized country. In discussing the probable reasons for this abstention of Americans and Canadians from alcohol, we pointed out the influence of an abundant and cheap diet of animal

food, and claimed that working people so nourished do not require to stimulate their energies with alcohol in order to accomplish their daily tasks.

Is alcohol a food? "Alcohol," says Gley (Seventh International Congress against Alcoholism, April 3rd, 1899), "is consumed in the organism; it furnishes calories, and any substance which furnishes calories by its decomposition must be useful. A good many physiologists, notably Strassmann in 1891, have proved that from 80 to 90 per cent. of the alcohol consumed is eliminated in the form of water and carbon dioxide. While undergoing combustion in this manner, alcohol furnishes seven calories per gramme; a litre of wine would therefore furnish about 700 calories per diem, or a fourth of all the calories required by the organism. This combustion of alcohol spares to the individual the combustion of his albuminoid tissues to the extent of 6 to 7 per cent. . . . . But alcohol is only a middling kind of food; it is dear, it does not give the same amount of nutriment as fat and the hydrocarbons. From the standpoint of the effect produced on nutrition, it is three times dearer than milk and eight times dearer than bread."

Looking at the use of alcohol as a food by people of unsound constitutions, such as the tubercular, it may possess peculiar advantages. Thus, Mircoli and Maragliano agree in advising the moderate use of alcohol in tuberculosis. The chief reason advanced in support of this view is that the antitoxic power of the blood serum to the germ of tuberculosis is greater in individuals who use alcohol moderately than in those who do not use it at all. Mircoli also mentions the fact that the dockmen of Genoa, who drink not less than three litres of wine per diem are not more subject to tuberculosis than men working at other occupations. In too many trades—tailoring, for instance—work has to be carried on in constrained attitudes, in a badly ventilated shop, for ten hours a day, by underfed people. Some of them are certain to be predisposed to, or already suffering from, tuberculosis, and therefore their chances of collapsing under the strain are considerable. If alcohol, taken in moderation, would enable these toilers to work and yet preserve a sufficient proportion of their too rapidly wasting physiological capital, it would be a great boon. From the standpoint of the treatment of acute suppurative lesions, something may be said in favor of this view. Surgeons know that in the treatment of compound fractures of the bones of an extremity alcohol renders

good service. When the assimilative functions are enfeebled, and will not transform solid food into chyle, alcohol supplies pabulum, and the calories necessary for the sustenance of the body. If the view advanced by Mircoli and Maragliano should receive support from other observers, the use of wines and spirits by tubercular subjects would receive an impetus quite superior to any accorded them so far.

In popular estimation, fresh meat supplies the best ration for the laborer. The Italian bread-eating navvy, when employed at the construction of the Canadian Pacific Railway, gave out after eight hours' work; his Irish or English compeers, who had a daily ration of beef, worked for ten hours. The greater staying powers of the meat-eating navvies would go to show that meat is superior to bread as a stimulating food. Meat may, however, advance in price—in fact, it has become dearer lately in America and Canada; and the advance in prices, even though it be of short duration, must give us pause. We also learn from the last annual report of the Registrar-General of Ontario, that 3,484 deaths from tuberculosis occurred in the Province during 1900. We have thus to face an advance in the price of meat and a large tuberculosis mortality. It may be opportune, therefore, to devote some consideration to the advantages of our old friend, oatmeal.

With a proportion of nitrogenous matter, which bears a favorable comparison with that of wheat, oats stand next to maize amongst cultivated cereals in the amount of fatty matter that is present. The percentage of saline matter is also high. "Oatmeal," says Dr. Cullen, "is especially the food of the people of Scotland; and was formerly that of the northern part of England—countries which have always produced as healthy and as vigorous a race of men as any in Europe."

Now, tubercular patients suffer from a demineralisation of their tissues a rapidity of physiological exchange, which makes for undue waste of the body, evidenced by phosphaturia. The use as a food of oatmeal, which is rich in phosphates, would therefore meet this indication.

Then, again, it is doubtful that any considerable percentage of the tubercular poor of Ontario will be accorded sanatorium treatment during the next two years. As our readers well know, free oxygenation of the tissues, which costs nothing, together with a liberal supply of fresh meat, which costs a good deal, are the

essential and co-operative features of the sanatorium treatment of consumption. If the State (Federal and Provincial Governments) would support sanatoria with subventions, the task of coping with tuberculosis would go bravely on. If not, then the sanatorium will be principally a club for rich patients, who can afford to pay for the luxury.

In the meantime, considerations as to the most efficient means of nourishing patients suffering from wasting diseases are always in order, and to none do they more especially appeal than to the tubercular subject, whose infirmity calls for a supply of expensive food, which his lean purse cannot afford to pay for. J. J. C.

SUDDEN DEATHS NOT TRACEABLE TO IMPORTANT PATHOLOGICAL LESIONS.

In popular estimation, sudden death, or death occurring rapidly in an individual, who, apparently at least, was a short time before in good health, may be due to murder, suicide, or the existence in the body of deceased of lesions of important organs.

Whatever the cause of sudden death may have been, or however obscure the circumstances surrounding it may be, people in general believe, that an autopsy will reveal the cause of death and, in formulating this opinion, the public mind and the medical mind are not far asunder. Certainly in the majority of instances of sudden death, an adequate explanation of the cause of the same may be expected, if a careful autopsy is made; but there are numerous exceptions. Our means of *post-mortem* investigation, it must be confessed, are still very imperfect. Is it not surprising that, although analysis enables the chemist to recover a considerable portion of the alcohol (or aldehyde derived from it) in the nervous centres, it is impossible to disclose the existence of any lesion whatever in cases of death from delirium tremens, or even in a case where an individual has died from acute intoxication within a few hours after swallowing a large quantity of alcohol?

An individual reputed to be in good health, wishes to have some hemorrhoids removed by a surgeon, and, after taking a few whiffs of chloroform, expires suddenly on the operator's table. Who can explain the deadly action of the primary effect of chloroform in such a case? The patient's death is said to have been caused by shock from chloroform, and is due to primary or laryngo-

reflex syncope. An autopsy reveals nothing. It furnishes no explanation, and leaves the surgeon more perplexed than he was before. Furthermore, although chloroform is for some patients so active a poison that it can produce sudden death after a few inhalations, we do not possess any data as to the co-efficient of susceptibility and of resistance offered by such or such a patient to these deadly vapors. In other words, an administration of chloroform to a person who has not taken it before may be looked upon as an experiment, extremely hazardous for some few persons, innocuous for others—the great majority. There are certain persons, reputed to be in good health, who cannot take even thirty drops of chloroform without incurring the risk of sudden death, and medical science cannot diagnose such causes in advance. Neither can a pathologist discover in the cadaver of a person who has expired under such circumstances, a lesion which satisfactorily accounts for sudden death from the primary shock of chloroform.

Professor Lancereaux, of Paris, recently published a paper on rapid or sudden death due to gastric disorders. He contended that sudden death, occurring in persons who are apparently in good health, is relatively frequent; but that the cause of such a death is very imperfectly understood. Deaths from embolism, from the rupture of an aneurism, or a rupture of the heart, are rare. In many cases of sudden death nothing of importance is discovered when an autopsy is made; the heart is empty, as if death had been due to a spasm.

One variety of sudden death, in Lancereaux's opinion, is of rather frequent occurrence. It supervenes during the course of a disease of the stomach. Death from this cause usually occurs during the night, towards the end of the forenoon, or the end of the afternoon. The heart is sound, the nerve centres do not appear to be affected. A case of sudden death in which the autopsy revealed such conditions was mentioned. Prior to the attack, which terminated in death, the individual referred to had had a medical consultation, after which repeated fainting fits occurred, terminating in death. The fainting fits had been preceded by disorders of the digestive organs. Lancereaux described a second case of a similar kind. He concluded that the preventive treatment of such cases would principally consist in endeavoring to ward off or cure dyspepsia.

We have been induced to mention these causes of sudden death,

which leave no marked lesions behind, because the average coroner's jury expects, after the cadaver of an individual who died suddenly and unaccountably, has been examined, that the pathologist who makes the autopsy will find a lesion capable of accounting for the catastrophe. Alcohol can kill suddenly and leave no lesion; so can chloroform. According to Lancereaux, dyspepsia, combined with intense emotion, can cause sudden death and leave no important lesion. J. J. C.

THE CANADIAN ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS.

This organization held its annual convention in the Normal School building, at Ottawa, April 17th and 18th, under the presidency of Sir James Grant, who delivered the opening address. His Excellency the Governor-General, Honorary President, was present at the evening session, April 17th, and introduced Dr. Knopf, of New York, who read an excellent paper, entitled "The Mission of Societies for the Prevention of Consumption in the Anti-Tuberculosis Crusade." In the ensuing discussion, the views expressed by Dr. Knopf were endorsed, and he received a cordial vote of thanks from the Association.

Several committees were appointed, and Committee No. 1 reported on the organization and constitution for the Canadian Association and the election of officers.

Committee No. 2 reported on the relations of Governments and municipal bodies to the crusade for the prevention of tuberculosis; legislation, notification by physicians of the presence of the disease, inspection of schools and examination of children; inspection or warnings against dangerous meat, milk, etc.

Committee No. 3 reported on the availability of general hospitals, sanatoria, seaside and other resorts, the care of public conveyances (steamships, railway carriages, street cars, etc.) to prevent the spread of the disease.

Committee No. 4 reported on the collection and publication of useful information for the education of the people towards securing their co-operation with the medical profession.

The reports were discussed by both physicians and laymen in a very full and satisfactory manner. The Association decided to publish and distribute a large number of copies of Dr. Knopf's

paper, and also reprints of a paper by Dr. Richer, entitled "Tuberculosis, a Social and Medical Disease."

The officers for the ensuing year are: Honorary President, His Excellency the Right Hon. the Earl of Minto, G.C.M.G., Governor-General; President, Mr. W. C. Edwards, M.P.; Hon. Secretary, H. B. Small, M.D.; Hon. Treasurer, Mr. J. M. Courtney, C.M.G. The head office of the Association is at Ottawa, Ont.

It is to be hoped that the efforts made to establish this Association will prove to be successful, and that fresh energy will be put forth by laymen and physicians to assist the Association in accomplishing its very meritorious objects. J. J. C.

PROPOSED CONVOCATION HALL FOR TORONTO UNIVERSITY.

Dr. R. A. Reeve, President of the University of Toronto Alumni Association, has addressed the following appeal to all of the members of that body in behalf of the building of a Convocation Hall for our Provincial University:

My Dear Sir,—You are doubtless aware that our *Alma Mater* has had no Convocation Hall since the fire, and that it is in great need of a large building for convocations and various academic gatherings, including social functions, extension lectures, concerts, etc, etc. It is strongly felt by many that not to have a place where the hundreds of her students in the Faculties and different Colleges can rally and mix, and see and hear one another, deprives the University of an important means of promoting that *esprit de corps* which should prevail in every great institution, and animate the alumni in after life. A well-designed Convocation Hall holding 2,000 would give added dignity, if not prestige, to the annual events, and would permit the presence in large numbers of patrons and friends, whom no institution can afford to exclude or ignore. It would also promote various academic interests, which rely in large part on the aid of a sympathetic public. Such a building will cost $50,000, and there is good ground to fear that, unless the requisite money be supplied by Alumni and friends, years will pass ere the finances of the University would warrant the Trustees in devoting funds to such purpose. This is the most weighty appeal yet made to the Alumni. The project is, however, quite feasible, and only needs for its success a united and loyal effort on the part of graduates, undergraduates and friends. Let us be equal to the occasion, and justify the hopes of many whose eyes are upon us, and who do not wish us to suffer by contrast. Devotion

to our *Alma Mater* should be the mainspring of our action, but the efforts of those attached to other institutions may well prove an incentive. The completion and dedication of a suitable Academic Hall would form a most fitting and gratifying feature of the celebration of the semi-centenary of our University.

The Faculties have already subscribed about $6,000, members giving $250, $200, etc. The subscriptions hold if $50,000 are promised, and they are payable in two instalments, June 1, 1902, and June 1, 1903. The Executive Committee feel that the best plan is for the graduates of the respective years in the several Faculties, and of federated and affiliated institutions, to work together. Your kind co-operation promptly given is most earnestly desired.

Yours sincerely,
(Signed) R. A. Reeve, *President.*

It is, we feel, unnecessary for us to impress upon either the members of the University of Toronto Alumni Association, or the medical profession all over the Dominion, the great importance attached to this very worthy object. That a Convocation Hall would be an exceedingly valuable addition to our University goes without saying, and we earnestly trust that the matter will be taken up with such a zest and enthusiasm that it will be only a matter of weeks before its success is assured. W. A. Y.

THE DOMINION MEDICAL COUNCIL.

We feel sure that the profession all over our Dominion hailed with delight the news that the bill which practically brings into force Inter-Provincial Registration, and establishes that for which we have longed for years, viz., a Dominion Medical Council, passed its third reading in the House of Commons on May 7th. All honor is due our confrere, Dr. T. G. Roddick, who has fought so persistently in this direction for years past. To Dr. Roddick is due all the credit in connection with the passing of this measure. Many a man possessed of less doggedness and admirable stubbornness of character would have tired long ere this, but not so with our confrere. He started out to win, and has won the race in face of all opposition. The medical profession all over Canada will now benefit immensely by the passage of this bill, and graduates from the different provinces can soon cease to worry, and rest assured that, if circumstances demand it, they may change their address

DR. T. G. RODDICK, M.P.,

Father of the bill which practically brings into force "The Dominion Medical Council."

and perform the healing art in any province of our fair Dominion without interference.

We trust that the various provinces will at once enact for themselves the necessary legislation, so that the bill passed through the House of Commons will come into force without delay.

W. A. Y.

A FURTHER ADDITION TO OUR STAFF.

It is a source of pleasure to us to announce this month that an addition of value has been made to our staff, in the person of Dr. N. H. Beemer, of Mimico Insane Asylum. Dr. Beemer needs no introduction to the medical profession, he having for years past been prominently identified with the treatment of mental diseases, and has been looked upon as an expert among Canadian alienists. The Doctor will contribute from time to time to our pages articles upon the subject of which he has made a specialty. W. A. Y.

EDITORIAL NOTES.

Antitoxic Action of Alcohol in Tuberculosis.—Mircoli (*München. Med. Wochenschr.*, 1902, March 4th, No. 9, p. 353), working under the direction of Maragliano, of Genoa, and in the latter's laboratory, has formulated as results of his observations certain conclusions, which are directly opposed to much that has been written about the action of alcohol in the etiology of tuberculosis. According to this author, alcohol, instead of being hurtful, is positively useful to tubercular patients, and is opposed to the development of tuberculosis in persons who are as yet free from that disease. Mircoli studied the quantity of serum necessary to neutralize in vitro the minimum dose of Maragliano's tuberculin, which would be fatal to a guinea-pig. Maragliano's tuberculin is a watery extract made from tubercular cultures. In making comparative studies of the serum of healthy individuals with that of alcoholic subjects, Mircoli discovered that the antitoxic power of the serum of alcoholic subjects towards Maragliano's tuberculin was much higher than that of healthy individuals. Moreover, the injection of Maragliano's antitubercular serum causes an increase of the antitoxic power of the serum, an increase much more marked in alcoholic than in non-alcoholic subjects. However, the antitoxic power

of the serum is only marked in subjects who use alcohol moderately, that is to say, in those who have not yet acquired organic lesions of the central or peripheral nervous system. In support of these data, which go to show, according to Mircoli, the preventive and curative effects of alcohol in tuberculosis, he mentions the fact that the dockmen of Genoa, who drink not less than three litres of wine per diem, are not more subject to tuberculosis than men working at other occupations. As a practical conclusion, Mircoli, who in this particular is in accord with Maragliano, advises the moderate use of alcohol in the treatment of tuberculosis, in order to increase the antitoxic power of the blood in such cases.

Polymicrobic and Ordinarily Non-Suppurative Osteomyelitis.—According to Dr. Lannelongue's view, acute osteomyelitis may be produced by different microbes. It is most frequently produced by the staphylococcus, the ordinary effects being suppuration, necrosis, abscesses, or hyperostoses of the affected bones. But it may also exist in a graver form, which does not terminate in suppuration, the organism being unable to react against so powerful an intoxication. If cultures are sown with blood taken from the bone of a living subject, attacked with one of these severe forms of osteomyelitis, two, and sometimes three, associated microbes are found, viz., the staphylococcus and the streptococcus, the streptococcus and the bacterium coli. These microbic associations appear to increase the virulence of the germs, and cause an aggravated form of the disease. At the onset, osteomyelites of these forms assume the appearances of severe attacks of articular rheumatism, typhus or pyemia. The signs of an intense infection are very marked, and death rapidly supervenes. Of the nine cases observed by Dr. Lannelongue, the upper extremity of the femur was attacked in four cases, the lower end of the femur in one case, the lower end of the humerus in one case, and the bones of the cranium in three cases. He thinks that, in cases of this kind, an early and free trephining of the affected bone is the only resource. By employing this method he has obtained several successful results.

Comparative Consumption of Alcohol in Different Countries.—Triboulet and Mathieu reproduce in their work on Alcohol and Alcoholism (1901), a statistic relating to the comparative consumption of alcohol in different countries. This statistic was prepared by M. Denis, member of the Genevese Statistical Society, and published in the reports of the Congress of Bale, 1896. In

this statistic, France occupies the front rank with 13.81 litres of alcohol per capita; that is to say, alcohol derived from wine, cider, beer, cognacs, liqueurs, and bitters. Switzerland follows, with 11 litres; Belgium next, with 10.59; Italy, 10.22; Austria-Hungary and Denmark, 10.2 each; Holland follows with 6.37, and the United States, 6.07. Finally other countries, two of which were formerly much addicted to the use of alcohol, do not reach the 5 litre limit. These are Sweden, 4.39; Norway, 3.31; and last of all, Canada, with only 2.3. Dr. R. Romme, in a still more recent work, "Alcoholism and the Struggle against Alcohol in France," puts the relative consumption as follows: France, 14.19 litres; Belgium, Germany, 10.50; British Isles, 9.25; Switzerland, 8.75; Italy, 6.60; Holland, 6.25; United States, 6.10; Sweden, 4.50; Norway, 3.00; Canada, 2.00.

True Cholagogues.—The latest work of Gilbert and Carnot on the hepatic functions contains interesting data for the clinical observer, as well as the physiologist. They say that the only genuine cholagogue is bile. This action of bile results from the general law, which attributes to each secretion an exciting action upon the secretory apparatus itself. The salicylate of sodium, according to these authors, appears to have equally an undoubted action upon biliary secretion. Linossier's view is quoted, in which he says: "The salicylate of sodium accumulates in the liver, and the excess is eliminated by the bile, whence the explanation of the cholagogue action of this drug." The bicarbonate of sodium, the chlorate of potassium, the benzoate of sodium, and the benzoate of lithium, aloes, ipecac, muscarine, turpentine, are feebly cholagogue in different degrees, whether they act on the secretion or the excretion of bile. Other substances reputed to possess cholagogue properties are actually the subjects of inquiry (calomel, corrosive sublimate, sulphate of magnesium, bromide of potassium, alcohol, ether, glycerine, colombo). Other medicines, again, diminish biliary secretion (sugar of lead, iodide of potassium, atropine).

Correlation of Scientific Observation and Folklore.—Dr. d'Angerville, in a study of the peculiarities of human hands, published in *La Science Illustre,* says: "Many persons have hair on the hand. . . . Kidd, the English naturalist, has recently called attention to the fact that the hair on the back of the hand is always absent on the joint that bears the nail, is rare on the middle joint, and is always present on the first joint. . . . This hair is

evidently the remains of the fur that our pre-human ancestors possessed. . . . It is thus irregularly distributed, because the end joint is much more exposed than the others to contact and friction." Kidd's observation corresponds with a notion, which occasionally crops up from folklore. An egotist makes a mental tracing of the ancestry of a despised enemy, and if sufficiently enraged, has the courage to develop the mental picture into words. Thus, a politician of the baser sort, who had been overreached in his canvass of a certain street by the cash or cunning of a rival, shook his fist under the latter's nose and shouted: "R—— P., you're covered all over with hair. You've got hair right down to your nails."

The Hindoo Xiphopagi.—Dr. Doyen, Paris, after a careful study of the Hindoo xiphopagi reported that it was an error to describe a membrane as uniting these twins. There was no supplementary tissue uniting them. What had been improperly called a uniting membrane was only an artificial pedicle produced by the stretching of the tissues, and which increased in length with the age of the twins. The formation of these double monsters is explained by the simultaneous development in the same ovule, doubly fecundated, of two juxtaposed embryos, always of the same sex. These monsters possess a certain individuality, although their circulations communicate. Thus Radica had a temperature of 99 5-10 F., while Doodica had one of 102 2-10 F. However, methylene blue injected subcutaneously into Doodica, was eliminated from the urinary secretions of both the twins. After they had been separated by an operation, performed by Dr. Doyen, Feb. 9th, Doodica succumbed to tubercular peritonitis. Radica has gained in weight, and her health is now said to be good.

J. J. C.

PERSONALS.

Dr. Eccles, of London, Ont., married again a few weeks ago.

Dr. Charles Temple, of Spadina Avenue, started this spring to ride to hounds.

Dr. Gee, of Carlton Street, has removed from Carlton Street to 214 Wellesley Street.

Dr. Francis Oakley died at his late residence, 279 Dovercourt Road, Toronto, on May 7th, aged 72 years.

Dr. K. Bradshaw, of 494 Spadina Avenue, has removed.

Dr. Edgar, Medical Superintendent Hamilton General Hospital, has resigned his position.

Dr. F. LeM. Grasett, with Mrs. Grasett, sailed to attend the Coronation festivities a few days ago.

Dr. Harry Vaux, of Bond Street, left ten days ago for merrie England, and will be away about two months.

Dr. Allen Baines has taken up golf as a recreation, and will, we understand, soon beat Bogie at his own game.

Among the medicos from Toronto who have left to attend the Coronation are Dr. F. L. Grasett and Dr. Hood.

Dr. Charles R. Dickson, of Toronto, attended the Convention of Railway Surgeons at St. Louis, Mo., last month.

Dr. Bruce Smith, of Brockville Asylum, will attend the American Medical Association at Saratoga this month.

Dr. Walter McKeown has removed from McCaul Street to No. 7 College Street, the residence of the late Dr. James Burns.

Dr. Bruce Riordan and Mrs. Riordan enjoyed a ten days' outing with Mr. Fitzhugh of the Grand Trunk Railway last month. They left in Mr. Fitzhugh's private car, and went to New London, Conn., Boston, and New York.

Dr. Albert A. Macdonald, of Simcoe Street, has in course of erection now a very fine electric carriage with pneumatic tires. The trap will be finished shortly, and will eclipse anything in the line of automobiles in Canada. This is the second electric carriage Dr. Macdonald has had.

Dr. W. A. Young has been invited to attend the American Medical Association Convention at Saratoga Springs, N.Y., as a guest of the Association. The Doctor and Mrs. Young will therefore leave on the 8th inst. for Saratoga, going by way of Montreal and the White Mountains. After the meeting they will sail down the Hudson River to New York, and spend ten days at Atlantic City, N.J., before returning home.

Items of Interest.

The Late Sir William MacCormac.—It has been decided to place a bust of Sir William MacCormac as a memorial in the central hall of St. Thomas' Hospital, London.

A Memorial to Dr. Semmelweis.—About $9.000 have been collected by subscription all over the world to erect a memorial to Dr. Ignaz Semmelweis, the founder of antiseptic obstetrics.

Reception to Dr. Wyeth.—On the evening of April 5th, a reception was given to Dr. John A. Wyeth, of New York, President of the American Medical Association, by the Medical Club of Philadelphia, at the Hotel Bellevue.

The One Hundredth Jag.—The *Philadelphia Medical Journal* says that it is very rare that a man survives his one hundredth jag. The maximum capacity of a man for alcohol is about two thousand gallons of whisky in fifteen years.

Attention, Physicians.—We desire to correspond with physicians who desire good locations for the practice of medicine in the United States. Full information of excellent locations given free.—Independent Business Bureau, Waterloo, Iowa.

Tuberculosis Non-Contagious.—Dr. S. A. Knopf, the well-known authority on tuberculosis, in addressing the New York Academy of Medicine lately, stated that tuberculosis was not contagious. A man with well-defined tuberculosis could do his work daily if proper precautions were taken and the sputum was removed and destroyed.

Wampole's Branch Office.—Henry K. Wampole and Co. have opened a branch office in Montreal, No. 20 St. Alexis Street (over the Bank of Ottawa) which will be in charge of their representative, Mr. R. E. Pineo. It is the intention to carry but a limited stock in this office, that small city orders for immediate delivery can be promptly handled.

The Association of American Physicians.—The Association of American Physicians has elected the following officers for the coming year: President, Dr. James Stewart, Montreal; Vice-President, Dr. William T. Councilman, Boston; Secretary, Dr. Henry Hun, Albany, N.Y.; Treasurer, Dr. J. P. C. Griffith, Philadelphia; Recorder, Dr. S. Solis Cohen, Philadelphia; and Councillors, Dr. Charles G. Stockton and Walter Reed.

Awarded Her Damages.—Miss Mary Hinman, of Grand Rapids, Mich., who sued Dr. Herrick for $5,000 because he allowed medical students to witness an operation performed upon her, was recently awarded $75 damages by a Circuit Court jury.

Jewish Hospital for Brooklyn.—A largely attended meeting was held on April 27 at Temple Israel, Brooklyn, N.Y., for the purpose of increasing the interest in the proposed Jewish Hospital in that borough. It is planned to raise at least $100,000 with which to begin the work of building. About $35,000 has already been subscribed, and it is expected that $70,000 will later be raised.

Canadian Medical Association.—The next annual meeting will be held in Montreal, on the 16th, 17th, and 18th of September, 1902, under the presidency of Dr. Francis J. Shepherd, of that city. The local Secretary is Dr. C. F. Martin, 33 Durocher Street, Montreal; the General Secretary, Dr. George Elliott, 129 John Street, Toronto. Prof. Wm. Osler will deliver the Address in Medicine, and Dr. John Stewart, Halifax, N.S., the Address in Surgery. Any members of the Association or the profession in Canada contemplating contributing papers or demonstrations should send notice of their intention to either the Local or General Secretary as soon as convenient.

The Ontario Medical Association.—The Ontario Medical Association opens in a few days in the Normal School Building in this city. It is earnestly hoped that the profession will turn out *en force* and make the 1902 convention a huge success, in that way giving encouragement to the worthy president, Dr. N. A. Powell, who has worked very hard to ensure this year's attendance being the largest on record. It is expected that Dr. Roswell Park, of Buffalo, will be a guest of the Association, though it cannot be promised that he will take a very active part in the proceedings. The list of papers promised is large, and the quality of the clinical material which will be presented will be of the best. Let us all be present, now, pay the modest fee required, and in that way, if in no other, assist a worthy cause.

Prize Essay on the Dangers from Self-Drugging with Proprietary Medicines.—The Colorado State Medical Society offers a prize of $25 for the best essay, for circulation among the laity, upon the dangers of self-drugging with proprietary medicines. The competition is open to all. Essays must be typewritten in the English language, must contain not more than 3,000 words, and must be submitted before June 15th, 1902. Each essay must be designated by a motto, and accompanied by a sealed envelope, bearing the same motto, and enclosing the name and address of the author. The essay receiving the prize will become the property of the Society for publication. Others will be returned to their authors. Essays should be sent to the Literature Committee. Dr. C. A. Graham, Sec'y, Stedman Block, Denver, Colorado.

Ants in Relation to Anthrax.—An English doctor residing in Cyprus has encountered remarkable cases of disease being transmitted in the sting of the solitary ant. In one instance a woman was stung in her sleep by one of these insects, and the wound showed active signs of anthracitic infection. It was then found that in the field adjoining her cottage there was a dead sheep, which had lain there for a week since it succumbed to that disease. Here, then, is yet another insect to be added to the growing list of those that, while not dangerous in themselves, are capable of great mischief, owing to their transmission of malignant bacilli.—*Modern Medicine.*

The Japanese in Massage Work.—The ability of the blind to perform massage successfully has been clearly demonstrated in Japan, where they are employed exclusively for this work. Their wonderful delicacy of touch has enabled them to acquire a high degree of proficiency, and therefore when massage was introduced into Russia, their employment also became general in that country. At the institute for the blind in St. Petersburg a considerable number of students are carefully instructed in the art of massage and also in the main points of physiology and anatomy. Their introduction into other European countries has thus far not been attended with success, although Germany is now making arrangements tending to their permanent employment.

Death of Dr. Moriz Kaposi.—Professor Kaposi, the distinguished dermatologist of Vienna, has departed this life. The deceased was a native of Hungary, was long and intimately associated with Hebra, whose son-in-law he became and whom he succeeded as Professor of Dermatology in the university. "While he contributed much to the literature of his specialty," says the *New York Medical Journal,* "Kaposi's greatest success was as a clinical teacher. The assured certainty of his diagnosis, the marvellous keenness of his observations, his wonderful memory, and his vast experience in his field, made his lectures vividly interesting and always instructive. He was a man of marked originality, and his death is a great loss."—*Medical Bulletin.*

Sterilize Catheters in Saturated Solution of Ammonium Sulphate.—M. W. Herman (*Brit. Med. Jour.*, June 1st, 1901) states that if silk catheters are boiled in plain water they soon become rough, cracked, and totally unfit for use. If, however, they are boiled in a saturated solution of ammonium sulphate they remain unchanged. Boiling from three to five minutes in the solution is sufficient to sterilize extremely dirty catheters, but they may be boiled for five hours and retain their polish. The only change is that they become more elastic and are therefore improved. After being removed from the solution they may be lubricated with vaselin and used immediately, without being dried, since the solution of ammonium sulphate does not irritate the mucous membrane.

Nelaton and elastic catheters may also be sterilized by boiling in the same solution.—*Medical Times.*

The American Congress of Tuberculosis.—The officers, in response to a very general and strong expression from the Western and South-Western States, Mexico, and the Central and South American Countries, have decided to postpone the session of the American Congress of Tuberculosis to the 2nd, 3rd, and 4th days of June, 1902 (the Banquet on the 3rd of June), to be held at the Hotel Majestic, New York City. This will enable our members and delegates to attend the following meetings at Saratoga Springs in June: The American Academy of Medicine, June 7th; American Association of Life Insurance Surgeons, June 9th; American Association of American Editors, June 7th; the large Meeting of the American Medical Association, June 10th to 13th. The press is requested to kindly announce this postponement.

Mississippi Valley Medical Association.—The Chairman of the Committee of Arrangements for the twenty-eighth annual meeting of the Mississippi Valley Medical Association, Dr. A. H. Cordier, has announced the dates of the next meeting in Kansas City, Mo., as October 15, 16, 17, 1902. The President, Dr. S. P. Collings, of Hot Springs, Ark., has announced the orators for the meeting, Dr. C. B. Parker, of Cleveland, O., to deliver the address in Surgery and Dr. Hugh T. Patrick, of Chicago, the address in Medicine. selections which will meet with the approval of every physician in the Mississippi Valley. A cordial invitation is extended to every physician in the United States, but especially of the Valley, to attend this meeting and take part in its proceedings. Titles of papers should be sent to the Secretary, Dr. Henry Enos Tuley, 111 W. Kentucky Street, Louisville, Ky., at as early a date as possible, to obtain a favorable place on the programme.

Was Cleopatra of Egypt a Physician ?—Zervos has unearthed old documents to prove that Cleopatra was the author of several works on medical subjects. They show a thorough understanding of the theme, he remarks—rare powers of observation, and enviable conciseness of statement. Her "Die Morbis Mulierum" includes good descriptions of "phlegmons of the uterus," displacements, etc. She observes that hemorrhoids are rare in women, but processes resembling them are frequent in the cervix. She lived at the time the Alexandria school was at the zenith of its fame, and may have taken a medical course there. It only required six months. She killed herself, according to Galen, in the most scientific manner by having the asp's poison poured into a wound in her arm. She also embalmed Antony's body with a dexterity showing great anatomical knowledge. Zervos refers also to several Latin works, dating from 1586, 1597, and 1612, which quote from her writings.—*Journal of the American Medical Association.*

Another Change in "The Canada Lancet."—Dr. H. B. Anderson, who has for some time past been Editor-in-chief of *The Canada Lancet,* has resigned all connection with that publication. The Doctor could not acquiesce in the views of the business management, and, as they did not show any wish to meet him even half way, he stepped down and out. We understand that Dr. John Ferguson, who by the way is President of the Ontario Publishing Co., the owner of *The Canada Lancet,* in addition to *The Canadian Magazine,* is to be Editor from this date. What the editorial staff will do now is the question. There are rumors in the air of a general resignation. If so, can *The Lancet* still claim its Trinity connection? In any event, let Toronto University look out, as we fear that some fur will soon start to fly.

Removal of Gunpowder Stains.—Dr. E. G. Corbett, of Hampton, Fla., writes: "On Christmas Day a boy of twelve filled a vaselin bottle with powder and exploded the same. I arrived on the scene about three hours after the accident and found the cornea and sclerotic of both eyes and the face literally blown full of powder. I removed a dozen or more flakes of powder from each cornea with a foreign spud; also removed the powder from the sclerotic. Did the operation under a four per cent. solution of cocain. After the operation I used a fifteen per cent. solution of hydrozone in the eyes. After removing the particles of glass from the face, I kept a cloth over it saturated with a fifty per cent. solution of hydrozone. At the end of two weeks I used a saturated solution of boric acid in the eyes, and painted the face twice daily with equal parts of hydrozone and glycerin. The eyes are well, and powder stains have disappeared from the face.

The Cause of Leprosy.—Dr. Jonathan Hutchinson, former President of the Royal Academy of Surgeons, who recently returned to England, after studying the causes of leprosy in South Africa, has arrived at the conclusion that the primary cause of the disease is the use, as food, of badly cured salt fish, which is sent inland from Cape Town and elsewhere on the west and south coasts and is largely consumed by the farmers and in the industrial centres. While giving this as the chief cause of the diffusion of leprosy, Dr. Hutchinson obtained conclusive evidence that leprosy, in very exceptional circumstances, may be communicated from person to person. He does not believe that it is either infectious or contagious, in the proper sense, but may be communicated by eating food contaminated by lepers' hands. Dr. Hutchinson suggests, as preventive measures, legislative control of the fish-curing establishments, the diffusion of information in regard to the danger of communication, and the establishment of isolation homes for the lepers during the stage of the disease involving a risk of contracting it.—*Phil. Med. Jour.*

Phthisiophobia.—In the eagerness to eliminate phthisis from the community, it is perhaps unavoidable that enthusiasts should occasionally err from excess of energy and stumble into the use of exaggerated forms of language and hinder progress by lack of tact and consideration for ancient prejudice. In dealing with phthisical cases it is needful that a wide-angled lens should be allowed to mental vision, and that the sociological, international, and humanitarian aspects should not be forgotten. As Mr. Malcolm Morris neatly puts it, "It is not scare but cure that is wanted." The United States Government has been badly advised in enforcing measures which cannot fail to have the effect of branding phthisis as a dangerously contagious disease. Phthisis is not to be considered a monster to be fled from, but a danger to be effectually overcome. Whilst an encouragement is to be given to every earnest and intelligent measure aiming at the prevention of the spread of tuberculosis, exaggerated statements and precipitate action will only result in havoc to the sufferers and injury to the community. Phthisiophobia is an enemy to rational progress, and must be treated as such.—*Medical Press.*

More Property for the Muskoka Cottage Sanitarium.—Thirty additional acres have been purchased by the Association to be added to the property of the Muskoka Cottage Sanitarium, and a new system of waterworks is to be installed, which will give the sanitarium an abundant supply of fresh spring water. Dr. C. D. Parfitt has been appointed physician in charge of the new Free Hospital for Consumptives that has been erected under the direction of the N.S.A., and he left for Gravenhurst on the 8th ultimo to enter at once upon the discharge of his duties. The report of the Secretary showed that patients were being received almost daily into the Free Hospital, applications coming from Toronto and many different parts of the Dominion. Accommodation has already been provided for fifty patients, and the necessary arrangements have been made to extend this to one hundred patients so soon as the call demands it. The Secretary reports that the contributions to the maintenance of the Free Hospital had reached $7,500, but as $30,000 a year would be required to maintain one hundred patients, further help in this direction is urgently required, though no one is being refused admission for want of needed funds.

The Association of Military Surgeons.—The eleventh annual meeting of the Association of Military Surgeons of the United States will convene in Washington, D.C., on Thursday morning, the 5th inst., 1902, and continue in session during the two following days. Every member is cordially urged to be present and participate in all the exercises, both social and literary. The social headquarters will be at the New Willard Hotel, corner 14th Street and Pennsylvania Avenue, N.W. The evenings will be given up

to pleasure, which will be amply and generously provided for by the Committee of Arrangements. It is much desired by the committee that the members of the Association be accompanied by ladies, as special arrangements will be made for their entertainment by the Ladies' Auxiliary Committee. The first session of the meeting will be held in the National Theatre, June 5th, at 10 o'clock a.m. The President of the United States is expected to attend this session. All subsequent sessions will be held in the convention hall of the New Willard Hotel, at 9 a.m. and 2 p.m. daily. There will be an exhibit of Surgical Instruments and Dressings, and all lines pertaining to Military Surgery and Medicine. Many of the leading houses of the United States will be represented at this exhibit.

Honor to a Canadian Physician.—Englishmen are not only waking up to the worth of the long-despised colonial as a soldier, but have begun to appreciate his scholarship as well. Recently Dr. H. A. Beatty, M.R.C.S., received a cable from Dr. A. H. Tubby, F.R.C.S., the distinguished London surgeon, offering him the surgical registrarship of Westminster Hospital, London. Dr. Beatty, who has recently returned home, after spending four years in post-graduate study abroad, was lately senior house surgeon of Westminster Hospital, London, and his brilliant work as assistant to eminent English surgeons, including Sir Frederick Treves, has resulted in the invitation extended to him to become junior member of the operating staff in the celebrated old hospital across the way from Westminster Abbey. Appointments even as house surgeons on the staff of Westminster Hospital are jealously sought for by the cleverest students that go out of the English universities, and the offer to Dr. Beatty comes as a distinguished honor to a graduate of Toronto University. No Canadian has ever been so highly honored before. Dr. Beatty is still on the bright side of thirty, and has had a splendid experience in the largest hospitals of London and Vienna. He is the eldest son of Mr. Henry Beatty, of 297 Simcoe Street, is well known as head of the C.P.R. steamboat department, and in navigation circles generally.

The Canadian Association for the Prevention of Tuberculosis.—The meeting of this Association took place at Ottawa on the 17th and 18th of April, and was well attended. Dr. S. A. Knopf, of New York City, delivered the address, and received a very warm reception from all present. Among those present at the meeting from Toronto were: Drs. J. J. Cassidy, Alex. McPhedran, F. N. G. Starr, Rudolf, J. T. Fotheringham, J. A. Temple, Allen Baines, E. J. Barrick, and J. H. Elliott, of Gravenhurst. We regret not being able to report the meeting more fully, owing to our having to go to press for May, and be out, as usual, promptly on the first of the month. The following were the officers elected: President, W. C. Edwards, M.P., Russell; Honorary Secretary,

Dr. H. B. Small, Ottawa; Treasurer, J. M. Courtney, Ottawa; Vice-President, Dr. Thorburn; Council, Sir James Grant, Ottawa; Sir William Hingston, Montreal; Dr. La Chapelle and Dr. Richer, Montreal; Dr. P. H. Bryce and Dr. Barrick, Toronto; Dr. Fagan, Victoria, B.C.; Dr. Bell, Winnipeg; Mayor Beck, London; Dr. McNeil, Charlottetown. The following were added to the Council on the nomination of the Governor-General: Hon. Sidney Fisher, M.P.; R. L. Borden, M.P.; C. B. Powell, M.P., Ottawa; Hon. Wm. Templeman, G. H. Perley, Ottawa; A. W. Fleck, Ottawa; Dr. Montizambert, Ottawa; Prof. W. J. Robertson, Ottawa.

A Signal Honor Bestowed Upon a Canadian Surgical Instrument House by the Imperial War Office.—On May 5th, the firm of Chandler & Massey, Limited, of this city and Montreal, had the honor of receiving direct from the War Office, London, Eng., a most substantial order for a full line of their own surgical dressings and supplies, for use in South Africa, and also at Netley Hospital. (See half-tone of original letter, page xiv. this issue.) We understand that this firm is the first in Canada to receive an order of the kind, and they certainly should feel highly honored, if for no other reason than that. We hear that Chandler & Massey Limited have been complimented on almost every hand for the style and quality of the dressings, etc., supplied for the use of the 10th Field Hospital, which left Canada for South Africa some months ago now, several of the hospital surgeons in active service on the field having so stated to the War Office. The C. & M. Field Operating Table has also been adopted by the War Office as the best submitted for all purposes, this firm having had to compete for this practically against the world, with the result that the British Board of Examiners reported the C. & M. to be the best operating table that went to South Africa. A further evidence that Canada will not take a back seat in the manufacture of fine ligatures, gauze dressings, etc., lies in the fact that Mr. Mayo Robson, Mr. Victor Horsley, and Mr. Clinton Dent have recently placed good orders with the same firm as above referred to, thus proving that, though only "from the colonies," we can in this country do the trick.

An Indictment Against Tobacco.—The very latest that we have heard of the antisocial influences of tobacco is that the cigarette has been brought up in scientific custody, charged by Dr. Le Juge de Segrais, of Luchon, with the infliction upon its over-confiding devotees of the physiological mutilation of impotence. The prosecution has been opened in the current number of the *Archives Generales de Medecine*, and the charge has been further maintained by the corroborative testimony of Dr. Georges Petit, who conducted experiments on a number of conspicuously philoprogenitive animals, dogs, cocks, rabbits, and guinea-pigs, by the various methods of inhalation (of smoke) of gastric injections, and of rectal ene-

mata. Sclerotic changes were thus induced in the testes—and ovaries—of the animals subjected to experiment. Coming from the land of dwindling population and decreasing families, such information possesses special value. It is interesting to note in this connection that in the quaint and rare work of the French explorer, Andre Thevet, who went, in 1555, to America with the object of taking part in the foundation of a French colony near the mouth of the Rio Janeiro, there is special mention made of the antiaphrodisiac properties of tobacco. In "Les Singularites de la France Antartique, autrement nomme Amerique, et de plusieurs Terres et Isles decouvertes de notre temps," a quarto dear to the heart of the bibliomaniac, and bearing date 1558, this observant traveller tells us that "the women in America forbeare the taking of Tobacco, because they have been taught that it will hinder conception and bodily lust" (Parkinson's paraphrase). What physiologist, even in the twentieth century, can be sure that he has made an absolutely original discovery?—*Medical Press.*

The Ontario Medical Association.—The twenty-second annual meeting will be held in the Education Department, Toronto, on June 4th and 5th. The Committee on Papers report very satisfactory progress, as the response to the preliminary notice has been good, and the papers promised are on subjects of general interest. There is space for further communications, and the hearty cooperation of the members in contributing to the programme will greatly assist the Committee in bringing their work to a successful issue. A feature of the meeting will be a session entirely devoted to the exhibition of clinical cases, medical, surgical, skin, and diseases of children. To facilitate the bringing of patients to the meeting from places outside of Toronto, arrangements have been made with the railroads whereby such patients will enjoy the same privileges as regards reduction of fare as are extended to members of the Association. It may be well to emphasize the point that persons holding railroad certificates receive reductions on the return trip, in proportion to the number of certificates presented to the Secretary at the time of the meeting, and not to the total number of persons in attendance at the meeting. Some of the subjects to be presented for discussion are: Dry Labors, Placenta Prævia, Obstetric Emergencies, Anesthesia, Tonsillar Hypertrophies, Pneumonia, Cerebro-Spinal Meningitis, Ventro-Fixation, Anomalous forms of Smallpox, Cerebral Embolism, and others. The provisional programme will be mailed to all physicians in the Province on or about May 20th, and it is desired that those wishing to present papers, or notes of cases, or patients, or who are desirous of taking part in the discussion of any of the above-mentioned subjects, will inform the Secretary to that effect prior to that date.

The American Medical Association.—The American Medical Association opens at Saratoga Springs, New York, on the 10th

inst. This year's meeting promises to be one of the very best, if not the best, for many years past. The list of papers already promised is lengthy, and each one is scientific, and will be found interesting to many who will attend the different sections. The headquarters of the Association will be at the United States Hotel, and the Convention will hold its meetings in what is said to be one of the finest halls on the American Continent, right in the heart of the village, with a seating capacity for 5,000 persons. The general exhibit will be displayed in the Hawthorn Springs Building, within a block of the Convention Hall, under which will be found post-office, telegraph office, and bureaus of information and registration. The Committee of Arrangements have secured the support of the Saratoga Business Men's Association, who will alone make the meeting a huge success. The entertainment Committee have planned out a splendid programme, guaranteeing all who go to Saratoga an enjoyable time. The entertainments will include: (1) On Tuesday evening, June 10th, a Piazza Concert at the United States Hotel; (2) a Concert at Congress Spring Park on Wednesday forenoon; (3) Wednesday afternoon, a Carriage Drive about the village, and Reception at "Yaddo"; (4) Wednesday evening, Reception and Ball at United States Hotel; (5) Thursday morning, June 12th, Excursion to Lake George for the ladies, and (6) Thursday evening, President's Reception at the United States Hotel. Dr. Geo. F. Comstock is chairman of the Committee of Arrangements, and Dr. J. R. Swanick, chairman of the Committee on Hotels, both of whom will be glad to give all information on request. The usual arrangements have been made with all the railroads as to transportation.

The Physicians' Bills on the President's Case.—Various conflicting statements have appeared in the daily papers of Buffalo concerning the compensation of the physicians concerned in the case of President McKinley, but the following statement which was written by Mr. John G. Milburn, president of the Pan-American Exposition Company, and published in the *Buffalo News*, says that none of the reports hitherto published are correct. Mr. Milburn is quoted as saying: "There is no basis whatsoever for the statement that the bills for the services of the doctors who attended the late President were referred to Senator Hanna and myself; that any bills rendered had been revised or cut down, or that I have anything to do with the preparation of any bill to be submitted to Congress. Some time ago I was requested to confer with the doctors about their compensation. No bills have been rendered by them. We met and talked the matter over. There has been no controversy between the doctors themselves or between me and any of them. As the result of our talk certain figures were made which were agreed on all round and impressed me as very reasonable, and those figures I sent to Washington, which is the last I have heard

of the matter. It is unjust to the doctors to represent them as having rendered bills which were cut down, or as having asked for compensation which was not allowed, or as differing between themselves. I am not at liberty to give the figures which I sent to Washington. Those which are given in the *Enquirer* are not correct. That is all I can say." The figures referred to as having been given in the *Enquirer* are as follows: Dr. Matthew D. Mann, $10,000; Dr. Herman Mynter, $5,000; Dr. Roswell Park, $5,000; Dr. Charles McBurney, $2,500; Dr. Charles G. Stockton, $1,000; Dr. N. W. Johnson, $1,000; Dr. Janeway, $1,000.—*N. Y. Med. Journal.*

Tannoform.—Recent communications of A. Caselli and Preiss show that tannoform is fully entitled to its good reputation as an intestinal antiseptic. The latter author, having made a series of comparative investigations on the properties of several modern substitutes for tannin available for the treatment of intestinal diseases of suckling infants, describes tannoform as an appropriate remedy in chronic and acute catarrhs of the small intestine and of the rectum, in infantile cholera and tuberculous diarrhea, but a favorable result may only be looked for in the case of children who have passed the second month. New and important communications have been published by Strassburger and Nolda with respect to the application of tannoform in the nocturnal sweats occurring in phthisis. In view of the fact that the internal administration of anhidrotics soon gives rise to disturbances in the nutrition, which may have fatal consequences, it is most gratifying to know that tannoform is an excellent, if not the best available, means for checking this unpleasant symptom, since, correctly applied, it almost invariably produces good results, whilst in no case has it been known to fail entirely. Tannoform dusting powder (1 part tannoform, 2 parts talcum venetum) should be rubbed in, rather than dusted over. In mild cases it should be rubbed into the skin of the chest with the palm of the hand, in graver cases into the neck and back as well, so as to work the powder into excretory ducts of the sweat-glands. In the morning and before the application of the tannoform in the evening the treated parts of the skin should be rubbed with brandy, so as to render the sweat-glands susceptible for the action of the tannoform. In military hygiene remarkable facts have been elucidated by the new experiments of F. Merz, of the Swiss Army Medical Corps, with regard to the utility of tannoform as a means of preventing hyperidrosis of the feet and the consequences arising therefrom. From these experiments Merz formulates the conclusion that tannoform constitutes an excellent and completely innocuous remedy available for considerably reducing the occurrence of foot-soreness, and that a systematic application of tannoform as a prophylactic cannot fail to considerably enhance the marching capacity of an army.

The Physician's Library.

BOOK REVIEWS.

A Reference Hand-Book of the Medical Sciences, embracing the entire range of Scientific and Practical Medicine, and allied science. By various writers. A new edition, completely revised and rewritten. Edited by ALBERT H. BUCK, M.D., New York City. Volume IV., illustrated by chromo-lithographs and 859 half-tone and wood engravings. New York: William Wood & Co. 1902.

It is now some months since we had the privilege of reviewing the last volume of this excellent work, and of adding our word of praise to what has really turned out to be a medical book of more than usual worth. We find that Volume IV. of the Reference Hand-Book has not only a large list of contributors, but a list of names of men in the profession who are known to have literary merit. We find the names of such well-known Canadian writers as Dr. J. George Adami, of Montreal; Dr. G. E. Armstrong, of Montreal; Dr. A. D. Blackader, of Montreal; Dr. F. G. Finlay, of Montreal; Dr. Beaumont Small, of Ottawa, and Dr. Douglas Montgomery, now of San Francisco. The list also includes such names as Dr. S. Ashurst, N. S. Davis, Edward Curtis, A. N. Blodgett, S. W. Abbott, R. P. Bigelow, G. B. Shattuck, J. H. Pratt, A. L. Loomis, H. A. Hare, Allen Starr, J. H. Musser, and quite a number of others.

As we have already stated, the Reference Hand-Book is arranged alphabetically, and all the reader has to do is to turn up to his subjects in alphabetical order, without the least difficulty. This is one of the best points in the literary make-up of the work, and from the mere fact that it is seldom or never adopted in medical bookdom, makes it quite attractive. Volume IV. comprises from *Ergot* to *Infiltrations.*

One of the most interesting articles in the volume is one of about fifty pages in length, by Whitman, on the Foot, its anatomy and deformities. The article is well illustrated and can be best described as being, in itself, a small and modern presentation of surgery as applied to this particular portion of the lower limb.

It is well-nigh impossible to even mention the different subjects taken up in this volume alone, their name being legion, as the book

can be safely considered a complete dictionary of, practically, every medical subject whose title commences with the letters *Erg.*, or between them and *Inf.*

Plate xxx. is colored, and gives a very good representation of gangrene of the leg, followed by a gunshot wound of the femoral artery. Plate xxxi. illustrates Raynaud's disease, showing gangrene of the finger; paronychia caused by infection with bacillus pyocyaneus; digital chancre; and Tinea Circinata of the hand. In a word, it can safely be said that if the editor and publishers can keep up their record, and get out the balance of the volumes with as high literary merit as they have to date, the Reference Hand-book can not but be a success. W. A. Y.

Contributions to Practical Medicine. By Sir James Sawyer, Knt., M.D. (Lond.); F.R.C.P. (Lond.); F.R.S. (Edin.); F.S.A.; Senior Consulting Physician to the Queen's Hospital; formerly a Professor of Medicine, Professor of Materia Medica and Therapeutics, and Professor of Pathology in the Queen's College; Physician to the Birmingham and Medical Hospital for Sick Children; President of the Midland Medical Society; Vice-President of the New Sydenham Society, and President of the Clinical Board of the Central and Queen's Hospitals, etc. Third edition, revised and enlarged. Birmingham: Cornish Brothers. 1902.

Contributions to Practical Medicine is, as its name suggests, a practical treatise on the every-day questions which come up in ordinary general medical practice. It is a collection of the writer's publications in medical periodicals for the past quarter of a century, and contains the best clinical lectures and annotations. The writer has dealt with this subject in a very practical way, and the subjects chosen are those most frequently required in the practice of a general physician, such as the causes and cure of Insomnia, the cure of Gastralgia, and of Habitual Constipation, the cure of Eczema, and treatment of Hemorrhoids, and there is even a special chapter on the cause and cure of a form of Backache. Most authors deal in a general disquisition on the rarer forms of disease, and often to the neglect of the commoner diseases, which, like the poor, we have with us always in our daily practice. Such cannot be said of the writer of this practical little work of some two hundred pages, as in addition to the subjects already named, the balance of the work is made up chiefly of such practical subjects as Inspection as a Method of Physical Diagnosis in Diseases of the Lungs and Pleuræ, Accentuation of the Pulmonary Second Sound of the Heart, Floating Kidney, Clinical Observations on Intestinal Obstruction, Medicated Lozenges, Fuming Inhalations in Asthma, Ether as a Menstruum in Medication of the Skin.

E. H. A.

An Introduction to Dermatology. By Norman Walker, M.D., F.R.C.P.(Ed.), Assistant Physician for Diseases of the Skin to the Royal Infirmary, Edinburgh. Second edition. Bristol: John Wright & Co., publishers. 9s. 6d. net.

A little more than two years ago we had the pleasure of reviewing this work in its first edition. The present edition contains 54 pages more than the first, and is just as readable, the author having aimed at producing a work to be noted for its simplicity, and to our way of thinking he has succeeded.

While the first edition contained only 29 full-page plates and 34 illustrations, the present edition contains 43 plates and 47 illustrations. Formerly but 13 pages were devoted to Tuberculosis of the Skin, now 20 pages are given to that subject. In this chapter, too, he relates his experience with the X-rays, and also describes Finsen's apparatus for the application of concentrated light. To both of these uses of photo-therapy he gives considerable credit.

Blasto-mycetic dermatitis is added in this edition, it having been left out of the former edition entirely.

In the matter of alopecia areata, he quickly disposes of Hutchinson's theory, and Crocker's, that the disease is unrecognized ringworm, and casts considerable doubt on Sabourand's bacillus.

As before, we commend this valuable book to both student and practitioner. F. N. G. S.

Mosquito Brigades, and How to Organize Them. By Donald Ross, F.R.C.S., D.P.H., F.R.S., etc., etc.

This interesting little book is a good indication of the strides in advance made by preventive medicine, during the years since the germ theory of disease has been put upon a sound basis. Finlay, in the West, Manson, and later Ross, in the East, deserve the discoverer's reward, perhaps, in respect of the connection between mosquitoes and disease. Twenty years ago Finlay was laughed at when he said that yellow fever infection was carried by mosquitoes; to-day the disease has been practically banished from Havana, where it was endemic, by what Ross calls "mosquito brigades."

This book by Ross has been written with the special knowledge of one who has dealt practically with the mosquito question in malarious countries, but its instructions are applicable as against the insect anywhere. It is well and almost humorously written, and in such a style that "he that reads may run." Apart from the question of the relationship between mosquitoes and special forms of disease, the book cannot fail to be of use to those who, considering mosquitoes as a nuisance and annoyance, are anxious to get rid of them, and incidentally improve sanitary surroundings.

The instructions given are clear, practical and, so far as experience enables us to judge, effective. The publishers, Longmans, Green & Co., have done their part of the work in their usual high-class style. J. J. C.

Atlas and Epitome of Otology. By Gustav Bruhl, M.D., of Berlin, with the collaboration of Professor Dr. A. Politzer, of Vienna. Edited, with additions, by S. MacCuen Smith, M.D., Clinical Professor of Otology, Jefferson Medical College, Philadelphia. With 244 colored figures on 39 lithographic plates, 99 text illustrations, and 292 pages of text. Philadelphia and London: W. B. Saunders & Co. 1902. Cloth, $3.00 net. Canadian Agents: J. A. Carveth & Co., Toronto.

The same criticism can be made of an Atlas of Otology as we have of the others of this splendid series. It is exceedingly practical, and a book which, both to the aural as also the general practitioner, must be valuable. The colored and other plates reflect credit upon those having charge of the mechanical part of the work, each one being a source of education along its particular line. The coloring is beautifully executed, and as delicate as we have ever seen in any work, conveying to the eye at a glance as true an idea of that part of the human body as could be found in the anatomical structure itself.

Quain's Dictionary of Medicine. By various writers. Third edition, largely re-written and revised throughout. With 14 colored plates and numerous other illustrations. Edited by H. Montague Murray, M.D., F.R.C.P., joint Lecturer on Medicine, Charing Cross Hospital Medical School, and Physician to Out-patients, Charing Cross Hospital; Senior Physician to the Victoria Hospital for Children, Chelsea, and to the Foundling Hospital; assisted by John Harold, M.B., B.Ch., B.A.O., Physician to St. John's and St. Elizabeth's Hospitals, and Demonstrator of Medicine at Charing Cross Medical School, and W. Cecil Bosanquet, M.A., M.D., M.R.C.P., Physician to Out-patients, Victoria Hospital for Children, Chelsea, and Pathologist to Charing Cross Hospital; late Fellow of New College, Oxford. New York: D. Appleton & Co. Canadian Agents: The Geo. N. Morang Co., Limited, Toronto. 1902.

Quain's Dictionary of Medicine! How many physicians, practitioners of the present day, are there who cannot assert the fact with truth that they owe a good deal of their medical knowledge to what they gleaned from Quain's Dictionary of Medicine? It is as familiar to most as Gray's Anatomy, or Flint's Practice

of Medicine. To criticize this volume would be no easy matter, as we question whether the third edition could be improved upon. Dr. Murray, with his able assistants, has gone over the book thoroughly, revised it, and in every way improved it and added to its value, giving now the medical profession a dictionary of medicine which is as nearly complete as it can well be made.

Diseases of the Intestines. Their special Pathology, Diagnosis, and Treatment. With sections on Anatomy and Physiology, Microscopic and Chemical Examination of the Intestinal Contents, Secretions, Feces, and Urine; Intestinal Bacteria and Parasites; Surgery of the Intestines; Dietetics; Diseases of the Rectum, etc. By JOHN C. HEMMETER, M.D., Philos. D., Professor in the Medical Department of the University of Maryland; Consultant to the University Hospital and Director of the Clinical Laboratory; author of a treatise on Diseases of the Stomach, etc. In two vols. Vol. II., with plates and many other illustrations. Octavo, 675 pages. Philadelphia: P. Blakiston's Son & Co. 1902. Price, Vol. II., net, $5.00. Set complete, $10.00. Canadian Agents: Chandler & Massey Limited, Toronto and Montreal.

Volume II. comprises Appendicitis, Tuberculosis, Syphilis, actinomycosis of intestine, the occlusions, contusions, rupture, enterorrhagia, intestinal surgery, atrophy, abnormalities of form and position, thrombosis, embolism, amyloidosis, neuroses of the intestines, intestinal parasites, and diseases of the rectum. He must indeed be a critic, fortunately not frequently found in this sphere here below, who will say that Dr. John C. Hemmeter's two-volumed work on Diseases of the Intestines has much that is lacking. The work, on the other hand, certainly reflects upon the author the greatest credit, and must stand for some years to come as one of the most modern presentations of the subject, "Diseases of the Intestines."

Atlas and Epitome of Operative Surgery. By Dr. OTTO ZUCKERKANDL, *Privatdocent* in the University of Vienna. From the Second Revised and Enlarged German Edition. Edited, with additions, by J. CHALMERS DACOSTA, M.D., Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia, etc. Second edition, thoroughly revised and greatly enlarged. With 40 colored plates, 278 text illustrations, and 410 pages of text. Philadelphia and London: W. B. Saunders & Co., 1902. Cloth, $3.50 net. Canadian Agents: J. A. Carveth & Co., Toronto.

Dr. Zuckerkandl is well known, not only in his own country, but by many on this side of the briny, as being a recognized author-

ity on surgery. It will, therefore, not be much wonder if an atlas upon this subject, and bearing his name, receives the endorsement we fully expect it will. This atlas we consider to be nothing short of a practical text-book on surgery. Is there anything as impressive as a subject, surgical or otherwise, brought out in illustration form? Take, for instance, an amputation through the thigh at its middle third. Where it is impossible to view such an operation being actually performed, an absolutely correct plate (the different structures cut through being colored with taste) of the various steps, gives a most excellent idea of what should be done, and thereby will impress the mind almost equally as well as standing alongside of the surgeon performing the operation. Such is the effect of a well gotten up atlas on operative surgery, as this one is. It is the cheapest and best investment a student or practitioner of medicine can make.

The Practical Medicine Series of Year-Books. Comprising ten volumes on the year's progress in Medicine and Surgery. Issued monthly, under general editorial charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Vol. IV., Gynecology, edited by Emilius C. Dudley, A.M., M.D., Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's and Wesley Hospitals, Chicago, with the collaboration of William Healy, A.B., M.D. March, 1902. Chicago: The Year-Book Publishers, 40 Dearborn Street. Price of this volume, $1.25. Price of the series, $7.50.

This volume consists of 112 pages, including an index. It is fully up to the high standard of the previous volumes of the series. The illustrations are numerous, and give one a very clear idea of the technique used in the various operations described. We are pleased to note the tendency to conservatism in the year's work in Pelvic Surgery. We are well pleased with this volume, and can recommend it to our friends, especially in the general profession.

W. J. W.

The Practical Medicine Series of Year-Books. Comprising ten volumes on the year's progress in Medicine and Surgery. Issued monthly under the general editorial charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Vol. V., Obstetrics, edited by Reuben Peterson, A.B., M.D., Instructor in Obstetrics and Gynecology in Rush Medical College. April, 1902. Chicago: The Year-Book Publishers, 40 Dearborn Street. Price of this volume, $1.25. Price of the series, $7.50.

The fifth volume of this series contains 226 pages and an index. The paper is good and the print clear. The work is well arranged,

and a great number of subjects treated, mostly in short form; but such subjects as Eclampsia, Extra-uterine Pregnancy, Placenta Previa, and Puerperal Infections, owing to their great practical importance, are given more extended notice. We are well pleased with this little volume, and think it fully represents the best practical work in obstetrics of the year. W. J. W.

Lectures on the History of Physiology during the Sixteenth, Seventeenth, and Eighteenth Centuries. By Sir M. Foster. New York: The Macmillan Co.

This little book contains some lectures delivered before the students of an American medical college out West. The pieces are somewhat disconnected, and do not present the subject with any great degree of completeness. The book will nevertheless be interesting to students of physiology by reason of the large amount of curious information gathered together in these pages.

E. H. S.

LITERARY NOTES.

New Book on Press.—The International Journal of Surgery Co., 100 William Street, New York, announce the publication of a new book on "Regional Minor Surgery, by Geo. G. Vanschaick, M.D., Attending Surgeon to the French Hospital and to the St. Vincent de Paul Orphan Asylum, New York. It will contain about two hundred pages, and will be profusely illustrated with drawings especially made for this book. It is bound in cloth and white leaf, printed on heavy book paper, and devoted to the treatment of the surgical conditions that are met in the daily practice of every physician. This book is thoroughly practical, and presents the subject in an interesting and instructive manner. Price, $1.50.

The Making of a Man.—We received recently a very handsome catalogue from the Geo. R. Fuller Company, of Rochester, N.Y., entitled "The Making of a Man," a title certainly appropriate for a catalogue published by an artificial limb house. It is an exceedingly handsome pamphlet, and the publishers deserve credit for getting out something beautiful typographically, and most delicately illustrated in colored half-tones. The Geo. R. Fuller Company is one of the oldest artificial limb houses in America, and judging from the attractive cuts in colors to be seen by looking through this their latest catalogue, we can almost understand that it is not such a trial after all to have to be the wearer of an artificial limb.

R
11
C38
v. 11

The Canadian journal of medicine and surgery

Biological
& Medical
Serials

PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET

UNIVERSITY OF TORONTO LIBRARY

STORAGE